INDUSTRIAL EQUIPMENT NEWS

JUNE - 1950
VOL. 15 • NO. 6

The Original IEN

INDUSTRY'S MOST COMPLETE PRODUCT INFORMATION SERVICE

What's New IN EQUIPMENT, PARTS, MATERIALS

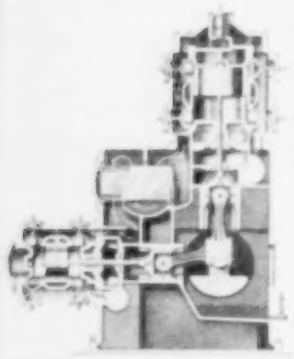
AFFILIATED WITH THOMAS REGISTER OF AMERICAN MANUFACTURERS

Product Information
for specifiers and buyers in all industries

▼ *REFER*—Identify by IEN - 5179 if you write the maker ▼

COMPRESSOR . . Two stage design 125 to 350 hp., 80 to 125 pounds

Source: INGERSOLL-RAND CO.
740 Morris Ave., Phillipsburg, N. J.



Air enters the intake manifold of this unit. Type 45LE compressor at 3 revolutions per minute through passages in valve chamber and gets into first stage of compression. Intercooler gas passes to second stage. Air enters the first stage of compression through a self-energized, sapped diaphragm. From here it moves in passages between the frame and high pressure horizontal cylinder for further compression and delivery at an outlet port in the frame head end near the frame end of the high-pressure cylinder. There are no piping connections at either cylinder.

Drive is by a synchronous motor mounted on the crankshaft. Bearings are full floating and secure freely on the bearing journals and within the cast or bearing housing. Main and crankpin bearings are aluminum. Pressure lubrication is maintained within the geared crankcase. Control centers at a point on the side of the housing.

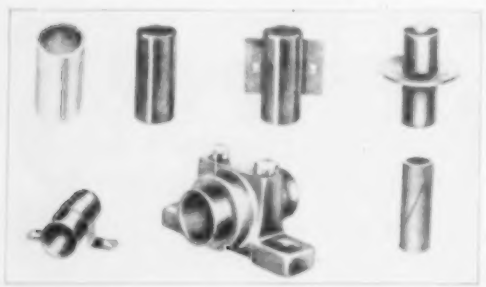
The compressor is intended for starting by an automatic hi-pass valve and relief valves on the high pressure cylinder, all connected to air from a single hand lever or automatic starting valve operating control is by 3-step founder unloading or by 2-step clearance mechanism. Six machines each with strokes of 7, 8½ and 10 in. make up the line. Cylinder bore is 14½ and 9 in. on the smallest machine, 24½ and 14½ in. the largest. Length is 88 to 123 in. with width including the motor at 90½ to 96 in. and height at 87 to 131 inches. Weights are 9,240 to 22,500 pounds.

Bulletin Form 3150, 20 pages, presents detail description, excellently illustrated with captioned sectional views in color; cooling specifications and data on dimensions are included.

▼ *REFER*—Identify by IEN - 5180 if you write the maker ▼

BEARING . . Glass coated cast iron or steel carries rubber-sleeved shaft

Source: FARLEY M. CALDWELL
1105-9 Rickwood Ave., Cincinnati 26, Ohio



Glass is fused in a thickness from 005 to 015 to an iron or ferroalloy steel to form an integral permeable-cemented bearing surface and, if desired, a complete coating over external as well as internal surfaces for the company's new line of Industrial Glass bearings. The illustration shows various designs that are now in the commercial line for shafts to 12 in. in diameter to operate at speeds to 4,500 rpm.

The bearing is installed with a loose or snug grip of resilient rubber to a seat that keeps from ½ to ½ in. depending on the service conditions. This sleeve grasps both the shaft and case or the bearing. It will operate successfully with most liquids as the lubricant but should not be run dry. A typical sleeve is shown in the lower right-hand corner of the illustration above.

The bearing is resilient. The sleeve is compressed as it is fitted and does not impart noise or vibration to the fluids being handled. Lubrication is economical. The rubber provides a sealing action. The company states that its crystalline bearing conforms to many recommendations.

▼ *REFER*—Identify by IEN - 5181 if you write the maker ▼

BELT . . Flat reinforced leather for power transmission, width to 24 in.

Source: S. R. SIKES CO.
1026-30 S. 3rd St., Minneapolis 15, Minn.

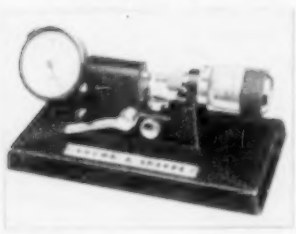
Cordan is the name of the new belt. The leather belt is made in a one-ply width only, with rayon cords. Three cords for ½ in. belt, 4 cords for ¾ in. belt, 5 cords for 1 in. belt, 6 cords for 1¼ in. belt, 7 cords for 1½ in. belt, 8 cords for 1¾ in. belt, 9 cords for 2 in. belt, 10 cords for 2½ in. belt, 11 cords for 3 in. belt, 12 cords for 3½ in. belt, 13 cords for 4 in. belt, 14 cords for 4½ in. belt, 15 cords for 5 in. belt, 16 cords for 5½ in. belt, 17 cords for 6 in. belt, 18 cords for 7 in. belt, 19 cords for 8 in. belt, 20 cords for 9 in. belt, 21 cords for 10 in. belt, 22 cords for 11 in. belt, 23 cords for 12 in. belt, 24 cords for 14 in. belt, 25 cords for 16 in. belt, 26 cords for 18 in. belt, 27 cords for 20 in. belt, 28 cords for 22 in. belt, 29 cords for 24 in. belt.

The belt is made in lengths up to 100 ft. and in widths up to 24 in. It is treated to withstand moisture, acid and alkali fumes. It is supplied in endless, cemented or laced form, as desired. Each belt is marked with the name of the manufacturer, the trade name, the number of plies, the width and the length.

▼ *REFER*—Identify by IEN - 5182 if you write the maker ▼

GAGE . . Indicating bench micrometer reads to ½ in., .0001 in. divisions

Source: BROWN & SHARPE MFG. CO.
235 Promenade St., Providence 1, R. I.



No. 213 is a new assembly of micrometer and dial indicator, each with carbide faced anvil, in an adjusting work rest to hold work at correct height, a retracting lever to unhold the work, and a rigid housing. List price is $175.

Range is 0 to ½ in. by .0001 in. divisions on the micrometer barrel and dial with .0001-in. divisions to a total of ten on each side of zero on the dial indicator. In addition there is overtravel provision of about .005 in. on the indicator. Zero adjustment is made by turning the head and locking it. Measuring pressure is set at the factory at 1½ lb. but can be changed on the bench by turning a screw for a range from 8 oz. to 2 pounds. Dial readout as well as eight directions can be measured.

Applications include inspecting to .0001 in. directly with the micrometer, thinning, measuring by .0001 in. directly from the dial gage with the micrometer set at the nearest .001 in. of measurement, operation as a comparator with the micrometer set and locked and plus or minus readings by dial or part on the indicator.

Bulletin, "Indicating Bench Micrometer No. 213", 3 pages, illustrated description of the assembly and its application, including further features, even portions about procedure.

▼ *REFER*—Identify by IEN - 5183 if you write the maker ▼

DRIVE . . Leather V-belt rayon cord insert, A, B, C sections

Source: CHAS. A. SCHIEREN CO.
30-40 Ferry St., New York 7, N. Y.

Tension Guard is a new leather V-belt in which is a central core of rayon cord to hinder stretching. The cords prevent stretch in service while the leather forms the belt and protects the correct surface. The company supplies these sections, A, B, C, in spliced units of specified length. It also offers 100-ft. lengths to cut and splice on the job.

A cutter as shown in the illustration and a lap gauge are available for splicing. The press can be applied on a belt to complete the connection, while in place on the sheaves. The company supplies instructions for the operation.

WHAT DO YOU NEED?

READER SERVICE FORM . . Look between pages 16 and 17 or 88 and 89 and "lift" the form you find there. Keep it beside you as you look through the pages. Note on it the numbers of the products on which you want further information. Then either mail it to us, so we can forward your requests to the manufacturers, or use it as your guide to write direct.

•

From a Chief Draftsman

•

Departments

READER SERVICE FORM — Page 16-17 or 88-89
SUBJECT INDEX — Page 102
INFORMATION WORK SHEET — Page 4
NEW LITERATURE — Page 25
NEWS NOTES — Page 70
"I WISH I HAD" — Page 101

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W. E. Smith — V. Pres. & Editor
F. Maw Smith — V. Pres. in Charge

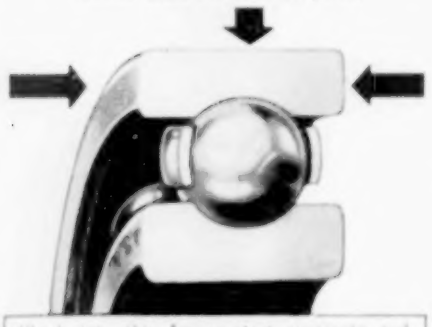
THOMAS PUBLISHING COMPANY
461 - 8th Ave., New York 1, N.Y.—LOngacre 3-1546

FILL IN AND SEND ALONG TO OTHERS INTERESTED IN PRODUCT INFORMATION

- Plant Operating Mr.
- Production Mr.
- Engineering Mr.
- Product Design Mr.
- Purchasing Mr.
- ☐

▼ *Identify by* IEN - 5184 ▼

RADIAL LOADS & THRUST
From Any Direction
Taken by one single row ball bearing
(either sealed-for-life or plain)



Check into this for greatest simplicity and economy of mounting. The famous New Departure rear wheel bearing on leading cars is an example . . . Remember — no other bearing set of dual type or not used in opposed pairs can equal this load service. New Departure, Division of General Motors, Bristol, Connecticut.

NEW DEPARTURE
BALL BEARINGS

▼ *Identify by* IEN - 5185 ▼

FREE! 32-PAGE HANDBOOK
SHOWS HOW TO STOP CONDENSATION DRIP

No Drip

Stops Drip from
- ✓ Cold water pipes
- ✓ Water filter tanks
- ✓ Metal or concrete ceilings
- ✓ Basement walls
- ✓ Condensers
- ✓ Air Ducts
- ✓ Blower pipes
- ✓ Dust Collectors
- ✓ Crystallizers

Learn how you can control condensation drip from pipes, tanks, ceilings—from metal, wood or masonry surfaces.

LOW COST — EASY TO APPLY

Anyone can apply NoDrip, the triple-duty insulation type coating. Brush it on or spray it on. Use it on pipes or equipment where temperature differences cause condensation. Save money by preventing rust and corrosion. Deader sound, decrease vibration in metal ducts or pipes.

HANDBOOK SHOWS HOW

Send today for your copy of the NoDrip HANDBOOK which tells what this plastic cork material can do for you. It's the modern solution to condensation drip problems.

Send for Free
Data Handbook Now!

J. W. MORTELL CO.
Dept. IE, Kankakee, Ill.

▼ *Identify by* IEN - 5186 ▼

Rigidized Metals®
Add Utility and Sales Appeal in 13 Ways!

There are 13 new performance characteristics in design strength, ruled and textured Rigidized Metals for extra utility, added sales appeal and to make less metal do more work. If you use flat rolled metals for any purpose, you can use Rigidized Metals more profitably. Investigate! Write today!

Rigidized Metals Corporation
Sales Offices in Principal Cities

▼ *Identify by* IEN - 5187 ▼

CONTAINER . . Welded stainless steel, holds 6 gallons, meets ICC requirements

Source: HEINTZ MFG. CO.
Olney Ave. & Front St., Philadelphia 20, Pa.

No. 18-6-20 . . . engineers the edge of the Type 304 stainless steel. The friction rating and the current issue of interstate use of this new Class I drug container. It is made of two drawn steel heads of the largest 18-gauge steel with the central opening of the largest container required. The heads are welded together around a central circumferential seam.

The design provides for complete drainage, easy cleaning, stacking in secure interlocked assembly, identification of shipper into the road to conform with ICC requirements in transporting and handling dangerous liquids. The cap can be turned on the bung and can be locked with a standard wrench or with a bar inserted in the opening in the end wrench.

▼ *Identify by* IEN - 5188 ▼

PACKAGING . . Glass reinforced paper, tough, waterproof, widths to 96 in.

Source: GLAS-KRAFT INC.
10 Mill St., Lonsdale, R. I.

Note spread of applications

Glass yarn, deposited to provide strength in all directions, is laminated with two plies of kraft paper supporting a waterproof bond to produce a new flexible packaging and utility paper known as Glas-Kraft. The sheet material can be supplied in rolls and in sizes to 96 in. in width. A roll 200 in. in diameter contains 2,000 lineal feet.

Applications include laser reinforcing for corrugated cartons, carton closures, wrapping and packaging for textiles, machinery, glass, steels, cements, chemicals, furniture. It can be supported as a liner in shipping containers, as a vapor barrier in building construction and as a tie-down.

▼ *Identify by* IEN - 5189 ▼

CUTTING . . Abrasive disc for cutoff use, diameters to 14 inches

Source: CHICAGO WHEEL & MFG. CO.
1101 W. Monroe St., Chicago 7, Ill.

New packaging has been developed for the company's resinoid-bonded abrasive cut-off wheels to prevent deterioration prior to use. Each disc is enclosed in a package made of a special paper through which moisture cannot pass.

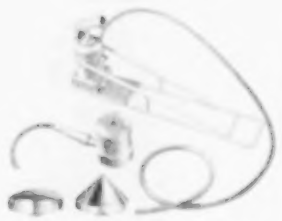
50 Makers of These And 50 Other Products Are Listed In THOMAS REGISTER — Descriptions — Ratings — See Page 50

▼ *Identify by* IEN - 5190 ▼

A NEW ENGINEERING BY
THE DUFF-NORTON MANUFACTURING COMPANY

"LO-HITE" JACK . . . Hydraulic Unit for heavy lifting in confined areas

Source: THE DUFF-NORTON MANUFACTURING CO.
Pittsburgh 30, Pa.



For use where unusual power must be applied in a relatively small space, it is claimed to be the first hydraulic jack to be designed with the low profile. Its unique pump action is said to provide maximum speed on the lighter loads and maximum power on heavy loads. Its compact design fits the ground clearance of many jacks of greater capacity.

With the closed height of only 4 in., this jack will lift a 10-ton load 2 in. For operating in confined spaces, it is provided with a handle that folds down parallel to the base. Both the base and the handle are fully machined for stability and the handle is provided with a non-slip grip.

Hydraulic oil in the "Lo-Hite" jack is contained in a separate chamber, independent from the working parts. This feature is claimed to prevent contamination of the oil by abrasive particles and to eliminate the need for frequent changing of oil. It is said to give the "Lo-Hite" a practically unlimited working life.

Because this jack operates efficiently in almost any position, it is claimed to be ideal for use in cramped quarters and generally confined spaces. It has a compact, rugged construction and is available in 5-, 10-, 15-, 20-, 25-, 30-, 40- and 50-ton capacities.

▼ *Identify by* IEN - 5191 ▼

SAVES MONEY ON CRATING and CONSTRUCTION WORK

Atlas
10" TILT/ARBOR SAW

Here's the heavy duty, yet completely portable saw that's reducing crating and construction costs to plants all over the country.

The reason? The big ca-pacity and rugged ball-bearing construction of the Atlas 10" bench saw. They give you extra speed and accuracy in making crates and boxes in wood manufacturing, in cutting lumber for plant construction.

Weighing under 200 lbs., the Atlas can be transported by two men or dolly to any part of the plant—floor stand available. Your choice of 2 big table sizes: 27" x 27" or 33½" x 33½", or 24" x 42" as shown above. Depth of cut 3½". There's 12½" table working surface ahead of blade. Quick-positioning rip fence locks at both ends—has Vernier control for easy adjustment.

Write for full details on this rugged, cost-cutting saw.

Atlas Press Co.

MACHINE PRECISION TOOLS FOR WOODWORKING AND METALWORKING

▼ *Identify by* IEN - 5192 ▼

HERE'S Dry Chemical at its fire fighting BEST!
A better powder — an improved discharge pattern — trigger-finger control — simple recharge in the field — that's the Kidde Dry Chemical Extinguisher! Write for free literature
Kidde
Walter Kidde & Company, Inc., 675 Main St., Belleville 9, N. J.

▼ *Identify by* IEN - 5193 ▼

A SURE WAY TO GET LEAK-TIGHT JOINTS IN BRASS AND COPPER TUBING

BRAZE WITH SIL-FOS

That's the way Kramer Trenton Co., Trenton, N. J. does it. They turn out hundreds of refrigerating coils a week with 10 to 40 brazed joints per coil—every one brazed with SIL-FOS and every one meeting a critical water pressure test. SIL-FOS—the low temperature silver brazing alloy for non-ferrous metals—not only assures leak-tight brass and copper joints, but also speed and economy in making them.

BULLETINS 12 A AND 17 tell you why and how. Write for copies today.

HANDY & HARMAN 82 Fulton St., New York 7, N. Y.

▼ REFER TO IEN - 5194 ▼

When you need...

WIRE

strong wire
tough wire
corrosion-resisting wire
oxidation-resisting wire
fatigue-resisting wire

THE INTERNATIONAL NICKEL COMPANY, INC.

Monel Nickel Inconel

▼ REFER TO IEN - 5195 ▼

If you make it with MAGNET WIRE
For any type of magnet wire or problem, consult Anaconda Wire & Cable Company, 25 Broadway, New York 4, N. Y. and 20 N. Wacker Drive, Chicago 6, Ill.
the right wire for the job
ANACONDA
wire and cable

▼ REFER TO IEN - 5196 ▼

BROWNING GRIPBELTS

—matched and sealed
for your protection

Each belt is placed in a testing machine which reads distance between sheave centers under a given tension. Belts with identical characteristics are assembled in matched sets, then sealed. Installation instructions accompany each set.

Nationwide service — write for the name of the BROWNING Gripbelt distributor near you.

BROWNING MANUFACTURING CO.
16 Chester Street Maysville, Kentucky

▼ REFER TO IEN - 5197 ▼

CONTROL . . Air operated controller for current, speed, process variable

Source: CONOFLOW CORP.
2102 Arch St., Philadelphia 3, Pa.

Model EE is a new assembly of the company's proportional-metering operator and a Bagnoud Controller to control Radio Valve, or whatever proportioning is required, for any current, voltage, fuel or pressure use to provide automatic control of the air operating cylinder and a Conoflow valve, motor, or the equivalent. Each assembly is made to meet specific requirements and provide ranges of operation.

The operating cylinder and piston assembly supplies the required diaphragm clamping, similar to models of air and operating oil pressure from a shop source or a source in the regulated pressure supply equipment. The output is power operation in step with the movements of the control motor. With the assembly of valve the required performance the motor operates power to various points. Instrument control the various motion of mechanical speed regulating equipment.

Accuracy in action can be held to 1/100 part of the total control throughout. Elements of the EE cylinder allows internal bleeding of the ring of the diaphragm to the surface. Complete Weights including the cylinder is 11½ pounds.

▼ REFER TO IEN - 5198 ▼

SWITCH . . Magnet operated for snap action, 10 amp. on 110 volt ac.

Source: JO-BELL PRODUCTS INC.
4838-42 S. St. Louis Ave., Chicago 32, Ill.

Spring leaf action contact switch in this new assembly is mounted to a gasket. A coil magnet 11, a non-conducting disc in an arrangement that holds the magnet in "up" position until the switch closed or open as specified. The assembly is mounted on a mounting to 3-in conduit boxes in the locking face of which is a grooved hexagon finger.

This finger carries a float or other means to hinge toward or away from the locking on changing conditions. When a weight sufficient (from 1 oz) attracts the magnet, pull it down inside the housing and operate the switch. When [illegible] the magnet will release and return the switch to normal. Control leads are brought out on the [illegible]

All Makers of Items And All Other Products Are Listed in THOMAS' REGISTER Descriptions Ratings See Page 30

▼ REFER TO IEN - 5199 ▼

Simplify Your Hose Buying with Hewitt-Robins Servall

Molded-embedded construction makes Servall tough. Synthetic rubber tube resists gasoline and rubber hose carrier provides a rugged, flexible, durable wall. Strong 3-ply synthetic cover resists weathering.

HERE IS MANY HOSES-IN-ONE, dependable suction and discharge hose for use wherever a special heavy duty hose is not required. Buy Servall. Buy it in the size you need. It can be used in any way you want it.

HEWITT-ROBINS
SERVALL HOSE

▼ REFER TO IEN - 5200 ▼

LUBRICATION ECONOMY

LUBRIPLATE LUBRICANT

Increased Bearing Life
from 2 Weeks to 2 Years!

LUBRIPLATE DIVISION

The Different LUBRICANT!

▼ REFER TO IEN - 5201 ▼

REPAIR WORN-OUT FLOORS OVER A WEEK-END

NO PLANT TIE-UP—
AND BETTER
HEAVY-DUTY CONCRETE

Don't let worn-out floors slow down production. Rebuild them with "Incor" 24-Hour Cement—do the job over a week-end. Get better, longer-lasting, heavy-duty floors, because Incor® cures THOROUGHLY in 24 hours. Write today for this new how-to-do-it book.

Free copy of "Concrete Floors," address Lone Star Cement Corporation, 100 Park Avenue, New York 17, N. Y.

*Reg. U. S. Pat. Off.

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Offices: Albany • Bethlehem, Pa. • Birmingham • Boston • Chicago • Dallas
Houston • Indianapolis • Jackson, Miss. • Kansas City, Mo. • New Orleans
New York • Norfolk • Philadelphia • St. Louis • Washington, D. C.

▼ REFER TO IEN - 5202 ▼

One user reports . .
$150,000 PROFITS in a year!

DETROIT ROCKING
ELECTRIC FURNACES

Show profits in plant after plant!

FERROUS and NON-FERROUS MELTING

DETROIT ELECTRIC FURNACE DIVISION
KUHLMAN ELECTRIC COMPANY
1050 26th St. • BAY CITY, MICHIGAN

▼ REPEAT—Ident. by IEN - 5203 ▼

The shape's the thing...

This booklet sent to you FREE

Climax Molybdenum Company
500 Fifth Avenue New York City

INDUSTRIAL EQUIPMENT NEWS

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What's New · EQUIPMENT · PARTS · MATERIALS

Vol. 18 JUNE 1950 No. 6

Information Work Sheet

▼ REPEAT—Ident. by IEN - 5206 ▼

Dependable . . . Efficient

DUST CONTROL with DUCON FILTERS

for every purpose

UNIFLOW BACKWASH COLLECTOR

FIBRE DUST FILTER

UNIT TYPE

MULTI-TUBE TYPE

The DUCON Co.
MINEOLA, N. Y.

▼ REPEAT—Ident. by IEN - 5204 ▼

Poro-Stone Filtration FOR COMPRESSED AIR

EFFICIENTLY REMOVES
OIL, WATER
PIPE SCALE

R. P. ADAMS CO., INC.
219 E. Park Dr., Buffalo 17, N. Y.

ADAMS Poro-Stone AIR FILTER

▼ REPEAT—Ident. by IEN - 5205 ▼

CRANE

Everything for Every Piping System

VALVES • FITTINGS • PIPE • PLUMBING AND HEATING

▼ REPEAT—Ident. by IEN - 5207 ▼

CUT THE COST OF FILLING!

with an S-A BOX CAR LOADER

STEPHEN S-ADAMSON MFG. CO.

TELLEVEL—Bin Level Controls
Car Loaders
Variable Speed Reducers
Car Pullers
SealMaster Ball Bearings
Winches
Saco Speed Reducers

231 RIDGEWAY AVE., AURORA, ILL.

▼ REPEAT—Ident. by IEN - 5208 ▼

WHEN YOU . . .

Disconnect, You Stop the Flow in *Both* Ends

EQUIPMENT MANUFACTURERS

Wiggins

QUICK DISCONNECT
INST-O-MATIC COUPLINGS

W. E. Tisch.

▼ ADDITIONAL DETAILS on these items at IEN - 5209 ▼

HOW MUCH DO POWER THROBS COST YOU?

In production loss?
In wear and tear of machinery?
In maintenance?

BIG SAVINGS result from remedying the common source—poor couplings.

LOVEJOY
L-R
Flexible Couplings

Get the complete Lovejoy Catalog and see for yourself.

Quick-Selling Selector Charts used by staff in the buildings and sent FREE with coupon.

50 YEARS

LOVEJOY FLEXIBLE COUPLING CO.

3014 W. LAKE ST. CHICAGO 44, ILL.

▼ ADDITIONAL DETAILS on these items at IEN - 5210 ▼

Here's
WHY!
FOR LASTING SERVICE
AND LOW MAINTENANCE
SPECIFY

- Pillow Blocks
- Take-up Units
- Flange Units
- Cartridge Units
- Flange Cartridge Units

SEALMASTER
BALL BEARING UNITS

Only **SEALMASTERS combine these features:**

Permanent Seal—Patented centrifugal seals exclude dirt and retain lubricant.

Self-Aligning—Misalignment of shaft in any direction cannot distort the seals.

No Housing Wear—Patented locking pin prevents rotation of outer race—positions unit for relubrication.

Pre-Lubricated—Each SealMaster is shipped with lubricant sealed in—ready for use.

Write today for a copy of Catalog No. 845

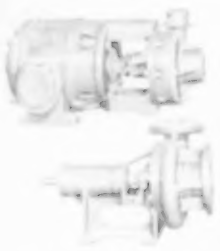
STEPHEN S-ADAMSON

Factory Representatives and Dealers in All Principal Cities

▼ ADDITIONAL DETAILS on these items at IEN - 5211 ▼

PUMPS...Versatile centrifugal for forced liquid circulation or transfer

Available from PEERLESS PUMP DIVISION
FOOD MACHINERY AND CHEMICAL CORPORATION



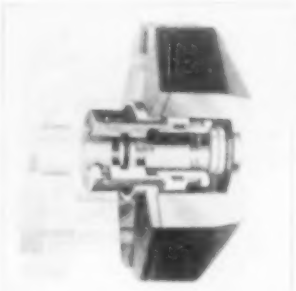
PEERLESS PUMP DIVISION
FOOD MACHINERY AND CHEMICAL CORPORATION

PEERLESS PUMPS for Value

▼ ADDITIONAL DETAILS on these items at IEN - 5212 ▼

SEALING . . Cartridge ring assembly prevents leakage along rotating shaft

Source: REPUBLIC SUPPLY CO.
Box 259-A, Houston 1, Texas



▼ ADDITIONAL DETAILS on these items at IEN - 5213 ▼

TESTING . . Kit to check water reads hardness in grains per gallon

Source: BERSWORTH CHEMICAL CO.
607-11 Waverly St., Framingham, Mass.

▼ ADDITIONAL DETAILS on these items at IEN - 5214 ▼

TROMBETTA SOLENOID CO.
331 N. MILWAUKEE ST. • MILWAUKEE 2, WIS.

SB-373 SHOE BRAKE
10" WHEEL, 5" FACE, 450 FT.-LBS.

SB-300 LINE OF BRAKES
TORQUE 3 TO 16500 FT.-LBS.

B-100 LINE OF DISK BRAKES
TORQUE 10 TO 25000 FT.-LBS.

EIGHT LINES OF SOLENOIDS
RECIPROMOTORS AND SEMOTORS

▼ ADDITIONAL DETAILS on these items at IEN - 5215 ▼

Heavy Duty
CHROMALOX
Electric Portable
IMMERSION HEATERS

FOR ON THE SPOT HEATING OF SOLIDS, OILS, TARS, GREASES, ETC.

Want More Details?

CHROMALOX
ELECTRIC HEAT FOR MODERN INDUSTRY

▼ ADDITIONAL DETAILS on these items at IEN - 5216 ▼

CHANGE PUNCH PRESS JOBS

1. Remove unwanted punches

As Easy As This

2. Insert punches for next job

with **IS** Interchangeable Punches and Dies

When you have similar parts to operate, each requiring a few changes in bore size, shape or location, you can produce them all from one die set—using I-S punches and dies.

How to secure production with a few minutes.

I-S punches can be held to go gauges for just soft, small quantity, for another, could quantity for one square for another, or can be left Light. If one hole is scarred, is unsuited to. Many savings, you get all the other proven advantages of I-S interchangeability.

Get The Whole Story in The Free Catalog

ALLIED PRODUCTS CORPORATION

Department 45 • 11615 Bull Road • Detroit 21, Mich.

▼ ADDITIONAL DETAILS on these items at IEN - 5217 ▼

INSTANT, LOW-COST WAY TO Control Machine Speed

ALLIS-CHALMERS, 909A 2D, TO 27
MILWAUKEE, WIS.

ALLIS-CHALMERS

REFER TO INDUSTRIAL EQUIPMENT NEWS IN YOUR INQUIRIES TO MANUFACTURERS SO THEY CAN SEND SPECIFIC INFORMATION

▼ REFER TO IEN - 5218 ▼

The New
METZGAR
"Pelican"
FLOOR
LOCK

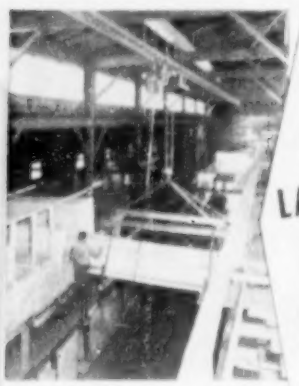
USE WITH PORTABLE BASE STAND

GET METZGAR'S PRICE BEFORE YOU BUY

Complete Line of Accessories

METZGAR CO.
417 Douglas N. W.
GRAND RAPIDS 4, MICH.

▼ REFER TO IEN - 5219 ▼



LUMBER STORAGE LABOR COST CUT IN HALF

THE AMERICAN MONORAIL COMPANY

▼ REFER TO IEN - 5220 ▼

A 564-Page
Authoritative Handbook
TOOL STEEL SIMPLIFIED
Yours for only $2.00 postpaid
Over 100,000 copies in use

Completely Revised!

Which of its 21 data-packed chapters can you use most profitably?

Part I — Getting Acquainted with Tool Steel

Part II — Selecting the Right Steel

Part III — Properties, Heat Treatment and Testing of Tool Steel

Part IV — Things Worth Knowing

CLIP AND MAIL NOW

▼ REFER TO IEN - 5221 ▼

TRUCK . . Hand rocker dump design caster mounted for refuse, parts, scrap

Source: IRWIN FOUNDRY & MINE CAR CO.
1950 Sensenich St., Irwin, Pa.

▼ REFER TO IEN - 5222 ▼

PACKAGING . . Plastic film in sheets and flat tubes, heat seals

Source: IRVINGTON VARNISH & INSULATOR CO.
21-5 Argyle Terrace, Irvington 11, N. J.

Samples and data upon request

▼ REFER TO IEN - 5223 ▼

LIGHTING . . Sealed-beam lamp produces 300 watt narrow beam spotlight

Source: GENERAL ELECTRIC CO.
1 Nela Park, Cleveland 12, Ohio

▼ REFER TO IEN - 5224 ▼

Move, Store, Tier Materials with
TRUSCON STEEL BOXES

TRUSCON STEEL COMPANY
Subsidiary of Republic Steel Corporation
YOUNGSTOWN 1, OHIO

▼ REFER TO IEN - 5225 ▼

NEW LAWLOR MODEL 12-W HAS ADJUSTABLE HANDLE

With this new streamlined Lawlor, operators can now scrub, wax, polish floors under desks, machines, lockers, etc. Handle can be raised or lowered to any angle within an 80 degree arc. Strongly made in the Lawlor tradition for long, satisfying service.

The Model 12-W is only one of the complete Lawlor line of quality floor maintenance units to take care of any kind and size floor.

S. C. LAWLOR CO. Quality Floor Equipment for 50 Years
120 N. Aberdeen St., Chicago 7, Ill.

▼ REFER TO IEN - 5226 ▼

Now GENERAL CATALOG NOW AVAILABLE!

- The most complete industrial Jack line.
- Full data on all types and sizes.
- Time and money-saving use and application recommendations.
- Shows all construction features and specifications.

SIMPLEX JACKS

TEMPLETON, KENLY & CO.

Simplex Jacks
and Coster-Hale Hydraulic Pullers

▼ REFER TO IEN - 5227 ▼

for
• SPRAYING • WASHING • RINSING • COOLING • AIR CONDITIONING

Get the most out of your spraying. Equipment with minimum power — with efficient spraying. Use Yarway Nozzles. No internal vanes or other restrictions to clog or hinder flow.

Wide range of standard sizes and capacities. Cast or machined from solid bar stock.

Thousands in use. Write for Bulletin N-616.

YARWAY
SPRAY NOZZLES
YARNALL-WARING COMPANY

▼ BRIEFIT—Identify by IEN-5228 if you write the maker ▼

TAKES THE POUNDING OF MILLIONS OF FEET

PABCO

SEND NOW FOR THE FULL STORY OF MASTIPAVE!

THE PARAFFINE COMPANIES, INC.
New York 16 • Chicago 54 • San Francisco 19
Mail to Dept. E nearest office

GENTLEMEN: Without cost or obligation to me, please send folder, "Every Building Needs Pabco Mastipave."

NAME CITY

ADDRESS STATE

▼ BRIEFIT—Identify by IEN-5229 if you write the maker ▼

PIPE DREAMS COME TRUE

U. S. Rubber Company experts solve any rubber pipe or hose problem . . . no matter how unusual or difficult

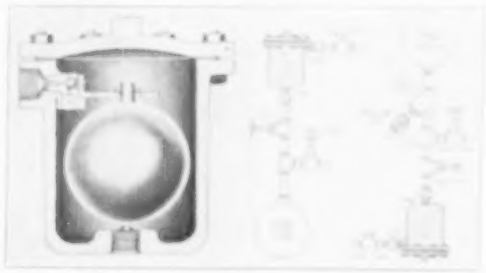
A Product of U.S. RUBBER SERVING THROUGH SCIENCE

UNITED STATES RUBBER COMPANY

▼ BRIEFIT—Identify by IEN-5231 if you write the maker ▼

VALVE . . Float operated for air, water and oil service piping

Source: CRANE CO.
836-8 S. Michigan Ave., Chicago 5, Ill.



Trapped air or steam from a pipe line handling water or oil is automatically eliminated by installation of this specially engineered valve in the pipeline system at a high point in the line. Circulation and accompanying noise are thereby improved. Valve is free floating, operated only by density of the fluid in which it is installed. Capacity up to 1/2 the size of pipe in which it is installed.

Two sizes . . . 1/2" and 3/4" . . . in bronze body and corrosion resistant stainless steel trim. Screwed ends. Pressure rating 250 lbs. at 450° F. Valves are supplied with or without integral strainer. Write for Bulletin 1600 which gives complete specifications, capacities, sizes and weights.

Construction . . .

▼ BRIEFIT—Identify by IEN-5232 if you write the maker ▼

MANHOLE STEPS . . And ladder rungs made of forged aluminum in three sizes

Source: ALUMINUM CO. OF AMERICA
2101-S Gulf Bldg., Pittsburgh 19, Pa.

Load rating . . .

Three sizes . . .

▼ BRIEFIT—Identify by IEN-5234 if you write the maker ▼

"Sems" maker cuts tool costs; lengthens production runs 10 to 40%

To cut production costs, a tool making maker improved heat treatment of production tools, at least that's the experience of Bristol & Hart Mfg. Co., Torrington, Connecticut, fastener manufacturer.

Bristol & Hart drills heat treated leading edge thread cutters and other tools by methods which did not always permit long tool life. Parts were short lived and caused cost production. Rising costs led the firm to inquire about improved heat treating methods. After hearing about Vapocarb Pump Hardening and Flame Tempering results they installed the equipment.

Tool troubles vanished. Work coming from L&N furnaces met all specifications and lasted longer. Cost heading the like the one shown, now permit heading machine to run 10 to 40% longer in the set up shown.

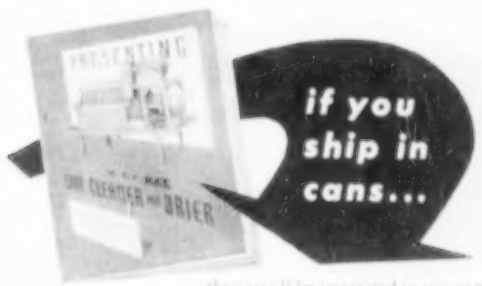
For information on better heat treating write us at 4935 Stenton Ave., Philadelphia 44, Pa.

LEEDS & NORTHRUP COMPANY, 4901 STENTON AVE., PHILA. 44, PA.

LEEDS & NORTHRUP

MEASURING INSTRUMENTS — TELEMETERS — AUTOMATIC CONTROLS — HEAT TREATING FURNACES

▼ BRIEFIT—Identify by IEN-5235 if you write the maker ▼



. . . then you'll be interested to see our booklet on the Rex Roto-Brush Can Cleaner and Drier. This unique new machine is proving to be a remarkable cost cutter in a wide variety of canning operations. Here are some of the profitable advantages you get by installing a Rex Roto-Brush:

1. Improved Product Appearance
2. Simplified Labeling
3. Important Space Savings
4. Speeds up to 300 cans per minute

For all the details just mail the coupon below.

CHAIN BELT COMPANY
[illegible] Milwaukee 1, Wis.
Please send me complete Rex Roto-Brush data.

NAME
COMPANY
ADDRESS
CITY STATE

REX CHAIN BELT COMPANY — FOOD PROCESSING EQUIPMENT

▼ BRIEFIT—Identify by IEN-5230 if you write the maker ▼

99 East Carson Street · Pittsburgh 19, Pa.

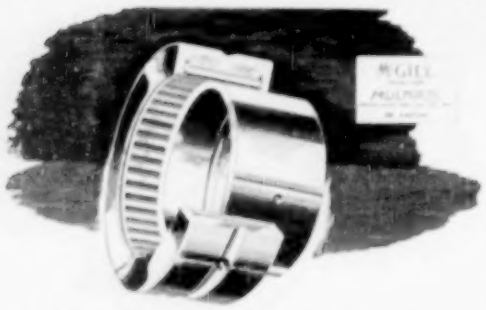
▼ BRIEFIT—Identify by IEN-5233 if you write the maker ▼

INSTALLATION COST $205,566 . . .
paid for itself in two years.
Above is one of many case histories (condensed) which is included with other helpful conveyor data in new book shown at right. Write for your copy today.
Logan Conveyors
LOGAN CO., 500 CASES ST., LOUISVILLE, KY.

▼ BRIEFIT—Identify by IEN-5236 if you write the maker ▼

Here's your Catalog
for grating and stair treads
Full of applications, specifications and engineering data that will help solve your grating problems
Send for your copy TODAY
BLAW-KNOX DIVISION
of Blaw-Knox Company
BLAW-KNOX ELECTROFORGED STEEL GRATING

▼ REFER TO—Identify by IEN - 5237 if you write the maker ▼



exclusive McGILL design provides *extra oil seal protection!*

The exclusive design of McGill SE Series of MULTIRIB Bearings not only increases load capacity and eliminates brass retaining rings but also creates an unusual lubrication seal providing extra protection against destructive particles. A groove that rotates (telescopes) to build in the inside diameter surface of the roller retaining rib shoulder. This lubrication wall, acting against inner race O.D. increases the sealing effect of the precision roller races between those shoulders and the inner race.

Multirib SE Series Bearings in standard shaft sizes of ½ to 4½ inches are nationally used by nationally known users for precision performance and longer bearing life.

The SE bearings are but one of several Bearing Series built by McGill Manufacturing Company, Inc. Consult McGill engineers on your problems.

Write for Bulletin 45 of McGill Manufacturing Company, Inc., Valparaiso, Ind.

McGILL

▼ REFER TO—Identify by IEN - 5238 if you write the maker ▼

TRICO OILERS

REPAY THEIR SMALL COST MANY TIMES

Reports From Satisfied Users Everywhere PROVE Our Claim!

In every instance where TRICO visible automatic Oilers are applied down time for "trust to luck" hand oiling is completely eliminated — production is increased — machine life is prolonged — fire and accident hazards are greatly minimized.

- TRICO OILERS ARE EASILY INSTALLED
- OIL SUPPLY IS ALWAYS VISIBLE
- REDUCE OIL CONSUMPTION UP TO 75%
- STYLES AND SIZES FOR EVERY APPLICATION

Speed Up SAFE Fuse Replacement with TRICO FUSE PULLERS

Prevent fuse block burns. Operator completely safe. Any handy size for hotting switch and fuse clip.

- Easy Distinctive Blade Gets Box
- Easy Use at Every Fuse Box

WRITE FOR BULLETIN NO. 5

FREE! AT YOUR REQUEST! No Obligation

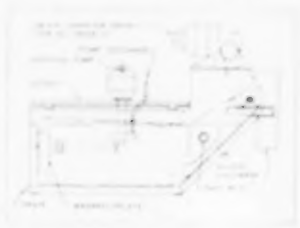
- "On The Job" Oiler Installation Book
- TRICO Oiler Catalog
- "Your Key" to Complete Lubrication Protection

TRICO FUSE MFG. CO. Milwaukee, Wis.

▼ REFER TO—Identify by IEN - 5240 if you write the maker ▼

SEPARATING . . Magnetic unit cleans grinding and machining coolants

Source: U. S. HOFFMAN MACHINERY CORP. 101 Fourth Ave., New York 3, N. Y.



Five sizes with capacities from 20 to 300 gpm, are included in Hoffman Magnaflux line of separating equipment for removing ferrous metal particles from cutting coolants or oils. Separator consists of two parts: the magnetic unit and the tank. The magnetic unit is a power driven revolving cylinder containing permanent magnets. The tank has an inlet chute for the contaminated coolant, and a discharge chute for the clean coolant. The magnetic unit is mounted on the tank with the cylinder partially submerged in the coolant. The cylinder rotates through the tank at a speed to give a surface speed of 100 fpm. Sludge that settles to the tank bottom and clumps particles held by the magnetic force are scraped from the cylinder surface by a stationary scraper blade. The clean coolant flows over a weir to a compartment from which it is pumped back to the machine tool.

▼ REFER TO—Identify by IEN - 5241 if you write the maker ▼

PAINTING . . Metal treating liquid for iron and steel prior to painting

Source: KELITE PRODUCTS INC. P. O. Box 2917-A, Trm. Annex, Los Angeles 54, Calif.

Non-toxic and non-inflammable

Poly Kote is a new patented liquid material for the conversion coating of iron and steel surfaces. The application results in a tough, non-porous, gray-black coating which is an excellent base for paint, lacquer, enamel or varnish finishes. Poly Kote is a clear liquid which is applied by dipping, brushing or spraying. The application results in a tough, non-porous, gray-black coating which is an excellent base for paint, lacquer, enamel or varnish finishes. Poly Kote is a clear liquid which is applied by dipping, brushing or spraying.

▼ REFER TO—Identify by IEN - 5242 if you write the maker ▼

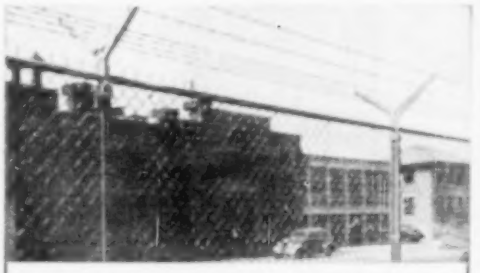
TESTING . . Electronic equipment finds hidden defects in ceramic tile

Source: ELECTRONIC ASSOCIATES INC. Naberal & Long Branch Aves., Long Branch, N. J.

Tile Sorter Model 100 is a test assembly of commercial solid-state circuits designed to examine ceramic tile and separate the faulty pieces from the good. It can check tile at speed to 600 per minute. The equipment is designed primarily for the examination of 4½ to 6½ in. sq. tile. It appears to be adaptable to other sizes and shapes. To date no tile has been rejected for incidental reasons, all of which deviations are of a kind that are repairable.

All Models of These and 50 Other Products Are Listed in THOMAS REGISTER — Descriptions — Ratings — See Page 50

▼ REFER TO—Identify by IEN - 5244 if you write the maker ▼



REALOCK FENCE

Provides Permanent Property Protection

Let a tamper proof, weather resistant Realock Chain Link Fence protect your property from straying, theft, trespassing and other hazards.

We make and install various types of Chain Link Fencing for the protection of industrial, institutional and residential properties. Write for catalog and free estimate.

Nationwide service. Consult classified phone book for nearest distributor or write our nearest division listed below.

Realock Fence

WICKWIRE SPENCER STEEL DIVISION
THE COLORADO FUEL AND IRON CORP.
THE CALIFORNIA WIRE CLOTH CORP.
BRANCHES & DISTRIBUTORS IN KEY CITIES EVERYWHERE

▼ REFER TO—Identify by IEN - 5245 if you write the maker ▼

meeting

"Bugs"

in designing new equipment?

Fight them with Linde Synthetic Sapphire!

Because of its low coefficient of friction, high melting point and hardness, and unusual chemical resistance, Linde synthetic sapphire has paved the way for trouble-free, longer life of both small and large parts in many diverse processes.

A few of the many new equipment parts include: precision balls, sleeve bearings, rods, orifices.

Call or write any Linde office for detailed information on how sapphire can be applied to your specific design problems. Write for your copy of the "Synthetic Crystal Properties Chart."

THE LINDE AIR PRODUCTS COMPANY
Unit of Union Carbide and Carbon Corporation
30 East 42nd St. UCC New York 17, N. Y.
In Canada: Dominion Oxygen Company, Limited, Toronto

▼ REFER TO—Identify by IEN - 5239 if you write the maker ▼

HOOKS, TONGS GRIPS and SLINGS

A COMPLETE LINE OF HOOKS, GRABS for factory handling of pipe, bars, plates, pulp rolls, paper rolls, crates, cartons, coils and other materials. Especially engineered Downs Hooks have scientific factor which prevents dropping, captures casings tested. Many types of hooks, tongs, grips and slings available for quick delivery.

WRITE FOR FREE ILLUSTRATED CATALOG 200

DOWNS CRANE & HOIST CO.
MECHANICAL ENGINEERS
340 W. VERNON AVENUE
LOS ANGELES 37, CALIF.

▼ REFER TO—Identify by IEN - 5243 if you write the maker ▼

Wayne in McGraw, Inc., Minneapolis

Decentralize

AIR TO AVOID SHUTDOWNS

AN ECONOMICAL WAY to insure continued production without danger of interruption due to lack of air. Install a Wayne in each department using air. Eliminates wasteful operation of the central compressor when a few departments work overtime and offers many other money-saving advantages. Write today for booklet.

THE WAYNE PUMP COMPANY
527 Seventeenth Street • Fort Wayne 4, Indiana

NATIONWIDE SERVICE
LIFTS · HOSE REELS · BULK PUMPS

▼ REFER TO—Identify by IEN - 5246 if you write the maker ▼

PROTO* Power Sockorse ...for Speed and Force!

6-Point (Box) Socket

Double-Square Socket

6-Point Deep Socket

BIG NEWS!!

PROTO Power Sockets Tripled

Fast as a Derby winner and strong as a plow horse, PROTO power sockets are equally useful with power and manual attachments. The greatly expanded PROTO line has many types and designs to provide the right power horse for your work. Race to your PROTO dealer and face the facts you need. Write for catalog to

PLOMB TOOL COMPANY
2277X Santa Fe Ave., Los Angeles 54, Calif.

*PROTO means PROfessional TOols. It's the new name for the tools that have been preferred for 43 years.

PROTO TOOLS
LOS ANGELES

REFER TO INDUSTRIAL EQUIPMENT NEWS IN YOUR INQUIRIES TO MANUFACTURERS SO THEY CAN SEND SPECIFIC INFORMATION

▼ REQUEST—Identify by IEN-5247 ▼

Makes everyone's job easier!

PARKER-KALON

SIZE-MARKED

Socket Head Cap Screws

Tool Crib Bosses

The Size-Mark speeds up sorting of left-over, mixed screws without the bother of gauging.

Assembly Workers

Size-Mark shows metal quickly—there's no time wasted in inspection.

Apprentices

The Size-Mark saves time, prevents bar-gainers from using heads as nuts, bolts.

And that GEAR GRIP makes 'em slip-proof—even when fingers are oily. Only Parker-Kalon offers these two time-saving features. Speed your product's assembly with P-K Socket Head Cap Screws. Send for samples and Stock List. Parker-Kalon Corp., 200 Varick St., New York 14, N. Y.

P-K

PARKER-KALON cold formed SOCKET SCREWS

Available Everywhere Through Accredited Distributors

▼ REQUEST—Identify by IEN-5248 ▼

to Your
PRODUCTION
SCREWDRIVING
PROBLEMS

Model E Detroit Power Screwdriver

MOTORIZED HOPPER UNITS

Mail Coupon for Catalog

DETROIT POWER SCREWDRIVER CO.

COMPANY NAME

STREET ADDRESS

CITY STATE

▼ REQUEST—Identify by IEN-5250 ▼

MARKING . . Insert die holder mounts replaceable steel die segments

Source: PARKER STAMP WORKS INC
702 Franklin Ave., Hartford 1, Conn.

▼ REQUEST—Identify by IEN-5251 ▼

SHOVEL . . Stainless steel hand unit in scoop and square point designs

Source: METALSMITHS
558-62 White St., Orange, N. J.

To handle materials without contaminating

▼ REQUEST—Identify by IEN-5252 ▼

FURNITURE . . Caster mounted table provides 18 by 24 in. work surface

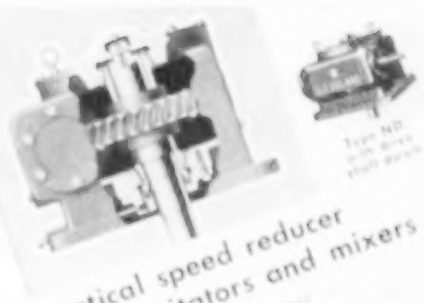
Source: STANDARD PRESSED STEEL CO.
P. O. Box 555, Jenkintown, Pa.

▼ REQUEST—Identify by IEN-5253 ▼

RUEMELIN
BLAST GENERATORS

RUEMELIN MFG. CO.

▼ REQUEST—Identify by IEN-5254 ▼



A new vertical speed reducer to drive agitators and mixers

CLEVELAND Worm Gear Speed Reducers

▼ REQUEST—Identify by IEN-5255 ▼

Is this the solution to your lubrication problems, too?

Write for these FREE bulletins

FARVAL
CENTRALIZED SYSTEMS OF LUBRICATION

▼ REQUEST—Identify by IEN-5256 ▼

IMPROVED TOOLS

SPEED STRAPPING

FOR FULL DETAILS — MAIL COUPON

THIS SEAL MEANS SECURITY IN SHIPPING

▼ Circle IEN 5257 ▼

NOW national distribution for

Pliobond

the adhesive that "Bonds Anything to Anything"

You can get **Pliobond** — the adhesive that "bonds anything to anything" — from a distributor located near you. You can get just the amount of **Pliobond** you need in small or large containers.

For full details, see your distributor or write

GOODYEAR CHEMICAL DIVISION, AKRON 16, OHIO

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2370 W. Market St.	550 Amherst St.	274 Brannan St.
Akron 13, Ohio	Buffalo, N. Y.	San Francisco, Calif.
Campbell Industries	N. C. Korn Co.	Acorn Adhesives &
542 W. 72nd St.	1653 N. 4th St.	Supply Co.
Chicago 23, Illinois	Milwaukee 3, Wis.	1010 West 11th St.
United Finish Co.	Corn Belt Adhesives	Los Angeles 15, Calif.
Carver St.	815 22nd Avenue	Kerman Industries
Peabody, Mass.	Council Bluffs, Iowa	8410 9th Ave. S. W.
		Seattle 6, Washington
	Bond Adhesives Co.	Hayes Adhesives Co.
	233 Wallabout St.	4139 Union Blvd.
	Brooklyn, N. Y.	St. Louis, Mo.

GOODYEAR

▼ Circle IEN 5258 ▼

STOP YOUR CRANES

the way you stop your car

with Wagner "Full Control" Hydraulic Brakes

Wagner Hydraulic Crane Bridge Brakes have been serving many industrial plants throughout the country. For safe, smooth stops — for controlled deceleration and close spotting — equip your cranes with Wagner "Full Control" Hydraulic Brakes.

Only Wagner Hydraulic Crane Bridge Brakes give you these features:

- Two Types — Four Sizes to Cover the Field
- New Remote Control Bleeder
- New Self-Centering Design
- New Systems easy to install
- Old Systems easily modernized

Write for Bulletin B-80 on Wagner Industrial Brakes.

Wagner Electric Corporation

6414 PLYMOUTH AVENUE
ST. LOUIS 14, MO.

ELECTRICAL EQUIPMENT AND AUTOMOTIVE BRAKE PRODUCTS

▼ Circle IEN 5259 ▼

BIN-FLO

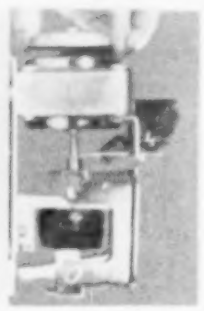
Provides
STEADY FLOW
of Bulk
Materials

THE BIN-DICATOR COMPANY

▼ Circle IEN 5260 ▼

RELAY . . Pneumatic time delay is adjustable between .2 and 200 sec.

Source: WESTINGHOUSE ELECTRIC CORP.
P. O. Box 2099-A, Pittsburgh 30, Pa.

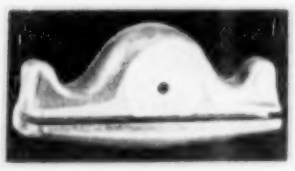


Type AM

▼ Circle IEN 5261 ▼

HANDLING . . Hand grip tool holds sheet metal for blanking work

Source: AFFILIATED MACHINE & TOOL CO.
67 Vestry St., New York 13, N. Y.



Safeed

▼ Circle IEN 5262 ▼

MARKING . . Paint in stick form fills marking lines on hard surfaces

Source: LAKE CHEMICAL CO.
3050-54 W. Carroll Ave., Chicago 12, Ill.

Lacquer Stik

▼ Circle IEN 5263 ▼

MAKE DAYLIGHT HOURS MORE PROFITABLE with FACTROLITE GLASS BY MISSISSIPPI

MISSISSIPPI Glass COMPANY

SAINT LOUIS 7, MO.

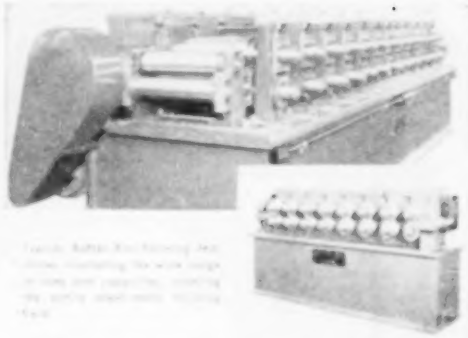
NEW YORK • CHICAGO • FULLERTON, CALIF.

World's Largest Manufacturers of Rolled, Figured and Wired Glass

▼ Circle IEN 5264 ▼

RAFTER COLD METAL ROLL-FORMING MACHINES

Correct Design for Maximum Efficiency



RAFTER MACHINE COMPANY, INC.

249 Stephens Street • Belleville 9, N. J.

GANG SLITTERS and PRESS BRAKE DIES

▼ Circle IEN 5265 ▼

CMH REX-TUBE

(Type RT-15)

the economical,
dependable
fully interlocked
flexible metal hose

CMH REX-TUBE, Type RT-15, flexible metal hose offers many unique engineering advantages which add up to dependability and economy:

1. HIGHLY FLEXIBLE — Fully interlocked construction.
2. DURABLE — Manufactured of bronze or steel.
3. VERSATILE — Suitable for conveying steam, air, asphalt, vegetable oils, hydrocarbons, or corrosives.
4. NON-AGING — Durable metal construction.
5. NON-CONTAMINATING — Corrosion resistance of metal.
6. NON-COLLAPSIBLE — Does not collapse or get out of round. Severe bends will not stop flow.
7. NO JOINTS TO PACK — The hose takes the motion, not the couplings.

Write today for complete information.

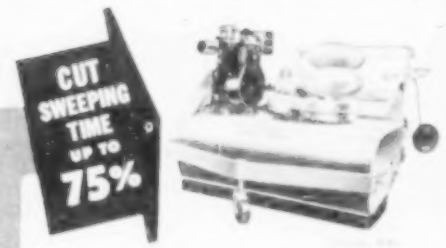
CHICAGO METAL HOSE CORPORATION

MAYWOOD, ILLINOIS

Plants at Maywood, Elgin and Rock Falls, Illinois

In Canada: Canadian Metal Hose Company, Limited, Brantford, Ontario

▼ Circle IEN 5266 ▼



RIDE OR WALK
with this new HEAVY-DUTY
WILSHIRE POWER SWEEPER

Free demonstration on YOUR job. Write for full information.

Wilshire
POWER SWEEPER CO.
4615 ALGER STREET
LOS ANGELES 39, CALIF.

Sweeping the Country since 1948

▼ REPEAT—Inquiry to IEN-5267 ▼

PHOSPHOR BRONZE

HIGH

Tensile strength
Elastic limit
Resistance to fatigue
Resistance to corrosion
Resistance to wear

SHEETS
WIRE
TUBES
RODS

The AMERICAN BRASS COMPANY
Waterbury 20, Conn.

49378

ANACONDA

▼ REPEAT—Inquiry to IEN-5268 ▼

Save TIME, MONEY, LABOR

with CHROMALOX Electric HEATERS

WANT MORE KNOW HOW?

Write today for your copy of Chromalox Catalog 50 and the booklet "100 Ways to Apply Electric Heat"

EDWIN L. WIEGAND CO., 7836 THOMAS BLVD., PITTSBURGH 8, PA.

CHROMALOX

ELECTRIC HEAT FOR MODERN INDUSTRY

▼ REPEAT—Inquiry to IEN-5269 ▼

RAMSEY Flexible COUPLINGS

Available in two designs

STRAIGHT TYPE

DIAGONAL TYPE

RAMSEY CHAIN COMPANY, INC.
5052 BROADWAY, ALBANY, N. Y.

▼ REPEAT—Inquiry to IEN-5270 ▼

HEATING . . Gas fired unit
with automatic burner and fan control

Source: REZNOR MFG. CO.
200 James St., Mercer, Pa.

▼ REPEAT—Inquiry to IEN-5271 ▼

GRINDING . . Profile surface machine
for precision tool, die and gage work

Source: AIRBORNE ACCESSORIES CORP.
23-27 Montgomery St., Hillside 5, N. J.

▼ REPEAT—Inquiry to IEN-5272 ▼

SAFETY EQUIPMENT FOR ALL INDUSTRIES

SANITARY Portable DRINKING FOUNTAIN for

CONSTRUCTION WORKERS • ROAD AND BRIDGE GANGS • MAINTENANCE CREWS • STEVEDORES MINERS • OIL FIELD WORKERS

Or Wherever a Permanent Water Supply is not Available!

Four gallon capacity. Fully insulated. Will maintain water temperature within ten degrees for twelve hours in the hottest weather.

CLEAN, COOL DRINKING WATER, ANYWHERE ANYTIME

IPCO Safety Equipment for all Industries

INDUSTRIAL PRODUCTS COMPANY

2801 N. FOURTH STREET • PHILADELPHIA 33, PA.

▼ REPEAT—Inquiry to IEN-5273 ▼

Packaging Improvement Starts HERE!

PACKAGE MACHINERY COMPANY
SPRINGFIELD, MASSACHUSETTS
NEW YORK · CHICAGO · BOSTON · CLEVELAND · ATLANTA · DALLAS
DENVER · LOS ANGELES · SAN FRANCISCO · SEATTLE · TORONTO · MEXICO D.F.

▼ REPEAT—Inquiry to IEN-5274 ▼

NEW Midget Relay

Long life even under vibration

The exceptionally good vibration characteristics of Ward Leonard's Bulletin 110 Midget Relays are due to:

- proper proportioning of contact masses and springing
- heavy pressures on both normally open and normally closed contacts
- semi-knife edge bearing which reduces frictional wear

Higher contact ratings than most midgets. Available up to 3-pole, double throw. Write for Bulletin 110. WARD LEONARD ELECTRIC CO., 31 South Street, Mount Vernon, N. Y. Offices in principal cities of U. S. and Canada.

WARD LEONARD ELECTRIC CO.
Result-Engineered Controls
RESISTORS • RHEOSTATS • RELAYS • CONTROL DEVICES

▼ REPEAT—Inquiry to IEN-5275 ▼

Aeroquip

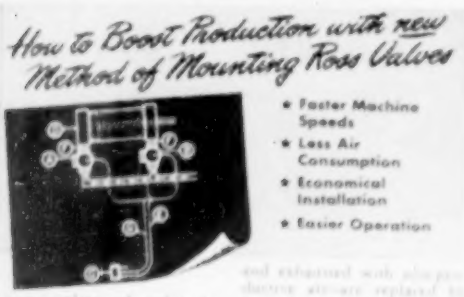
FLEXIBLE HOSE LINES and DETACHABLE FITTINGS

Cut Costs 9 Ways

1. Reduce inventory.
2. Reduce expensive downtime.
3. Permit you to salvage old hose lines.
4. Make possible immediate repair of hose line failures.
5. Eliminate the need for factory assembled hose lines.
6. Permit you to make hose lines to desired length as required.
7. Permit you to replace rigid tubing failures on the spot.
8. Eliminate the need for rigid tubing forms and jigs.
9. Permit you to make hose lines for mock-up installations rapidly.

AEROQUIP CORPORATION
JACKSON, MICHIGAN

▼ REQUEST—Identified by IEN-5276 if you write the maker ▼


How to Boost Production with new Method of Mounting Ross Valves
• Faster Machine Speeds
• Less Air Consumption
• Economical Installation
• Easier Operation

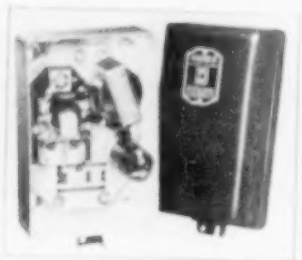
ROSS OPERATING VALVE COMPANY
120 E. GOLDEN GATE AVE., DETROIT 3, MICHIGAN

▼ REQUEST—Identified by IEN-5277 if you write the maker ▼

▼ REQUEST—Identified by IEN-5279 if you write the maker ▼

MOTOR CONTROL . . Time delay relay restarts after momentary power failure

Source: SQUARE D CO.
4041-61 N. Richards St., Milwaukee 12, Wis.



Power restoration.

▼ REQUEST—Identified by IEN-5280 if you write the maker ▼

PROTECTING . . Leather gloves with wool lined backs for welders

Source: AIR REDUCTION SALES CO.
1656 Lincoln Bldg., New York 17, N. Y.

Complete data in Catalog 13

▼ REQUEST—Identified by IEN-5281 if you write the maker ▼

TESTING . . Electric shunt for switchboard use, 10 to 20,000 amp.

Source: COLE INSTRUMENT CO.
1318-22 S. Grand Ave., Los Angeles 15, Calif.

▼ REQUEST—Identified by IEN-5283 if you write the maker ▼

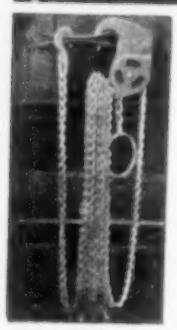
NOW! EFFICIENT BAG CLOSING FOR SMALL PLANTS

SEND FOR THIS NEW BULLETIN!

UNION SPECIAL

▼ REQUEST—Identified by IEN-5284 if you write the maker ▼

OPENS BOX CAR DOORS!



NOLAN ONE MAN CAR DOOR OPENER

THE NOLAN COMPANY • 118 Pennsylvania Street, Bowerston, Ohio

▼ REQUEST—Identified by IEN-5278 if you write the maker ▼

No Floor Damage!

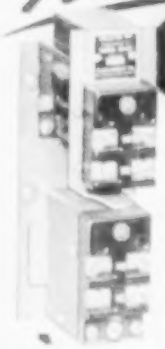
WHEN YOU MOUNT YOUR MACHINES ON

UNISORB

The FELTERS Company

▼ REQUEST—Identified by IEN-5282 if you write the maker ▼

New... BULLETIN 849 PNEUMATIC TIMING RELAY



Good for Millions of Operations

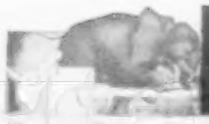
- For "dash up" or "dash down" operation.
- Available for NEMA Type 1, 4, 7, and 9 applications.

ALLEN-BRADLEY
QUALITY
MOTOR CONTROL

▼ REQUEST—Identified by IEN-5285 if you write the maker ▼

NOW A WIDE RANGE OF AIR PRESSES

Cut Costs...



MEAD SPECIALTIES COMPANY

▼ BRIEFLY—Identify by IEN-5286 ▼

AIR CYLINDERS

It's **MUSCLE** *you need!*

AIR CYLINDERS

JAMES L. ENTWISTLE CO.

436 CHURCH STREET — PAWTUCKET, RHODE ISLAND

▼ BRIEFLY—Identify by IEN-5287 ▼

Greater capacity in existing conduit with DENSHEATH small diameter wire

DENSHEATH®
(Type TW) Thermoplastic covering

the right wire for the job **ANACONDA** WIRE AND CABLE

®Reg. U. S. Pat. Off.

▼ BRIEFLY—Identify by IEN-5288 ▼

If You've Never Used SMOOTH-ON, *read this:*

STOPS LEAKS SMOOTH-ON NO. 1 CEMENTS IRON

FREE 40-PAGE REPAIR HANDBOOK

SMOOTH-ON CEMENTS

SMOOTH-ON MFG. CO., Dept. J
570 Communipaw Ave., Jersey City 4, N. J.

Do it with **SMOOTH-ON**
THE IRON CEMENT OF 1000 USES

▼ BRIEFLY—Identify by IEN-5289 ▼

WATER TREATING . . Wetting compound adds to water for fire extinguishing

Source: AQUADYNE CORP.
220 E. 42nd St., Room 1511, New York 17, N. Y.

Pyradyne

The capsule

Booklet

▼ BRIEFLY—Identify by IEN-5290 ▼

CLEANING . . Engine driven sweeper mounts 42 in. brush and dust collector

Source: WAYNE MFG. CO.
1211 Lexington, Pomona, Calif.

Heavy dirt

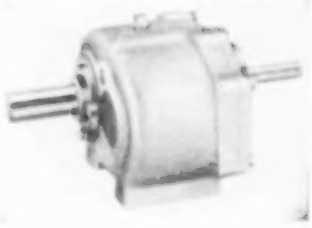
The machine

All Makers of Them And All Other Products Are Listed In THOMAS REGISTER — Investigate — Ratings — See Page 56

▼ BRIEFLY—Identify by IEN-5291 ▼

REEVES BROTHERS, INC.
54 WORTH ST., NEW YORK 13, N. Y.

▼ BRIEFLY—Identify by IEN-5292 ▼



2-speed automatic TRANSMISSION

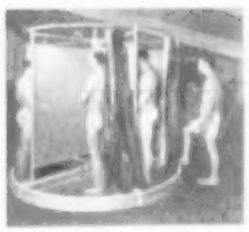
. . used to supplement constant-speed and multi-speed motors . .

with the advantages of providing broader range of speeds, and special ratios not obtainable electrically . . . In the five horsepower (illustrated) model, with a 1750 rpm input speed, the low limit of reduction is 6.31 to 1 but any pre-selected ratio from direct motor speed to this low limit is obtainable. WESTERN Two Speed Automatic Transmissions are built to handle 5, 10, 15, 20, 25 and up to 50 horsepower motors. Send for complete information.

up to 50 h. p. **WESTERN TRANSMISSIONS**

▼ BRIEFLY—Identify by IEN-5293 ▼

Multi-Stall Showers Cut Janitor Work and They're More Sanitary



Healthy Showers keep perspiration to a minimum and there are no odors or dirt clogs to collect dirt. They use no S-bend that requires three supply lines — hot water, cold and drain. A single supply line and drain is all that is required, connecting control to free moving, large angle ball shower arm. Another Manchester shower with hospital curtain protects bather, prevents splashing, gives neighboring compartments privacy if desired.

These sanitary shower units can probably be installed and may be in-stalled for only about all new including wood. They make possible cost savings in first cost, upkeep and installation expense.

BRADLEY WASHFOUNTAIN CO., 2119 W. Michigan Street, Milwaukee 1, Wisconsin

BRADLEY multi-stall showers

Write for big Catalog D-713.

▼ BRIEFLY—Identify by IEN-5294 ▼

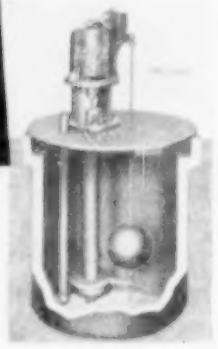
QUELARC The Circuit-Breaking Plugs and Receptacles . . . Ratings up to 200 AMPERES

CONDUIT FITTINGS • FLOODLIGHTS

THE PYLE-NATIONAL COMPANY
1345 North Kostner Avenue • Chicago 51, Illinois

▼ REFER TO IEN-5295 ▼

Eliminate DAMAGING DRAINAGE WATER . . .



Write for Complete BULLETIN S-135

Est. 1859

TABER SUMP PUMPS

▼ REFER TO IEN-5296 ▼

JEFFREY BUCKET ELEVATORS

New Improved Design

- Welded Angle Corings—Sides, ends, steel. Dust-tight Water-tight
- Improved Head and Boot Sections
- Increased Bearing Protection
- Removable Head
- Large Clean-out Doors both sides
- Large Inspection Doors for access to chain and Buckets
- Take-ups Furnished for Head or Boot if desired—self-aligning, plain or anti-friction bearings

A few features of our Standard Bucket Elevators. A type and size to meet any requirement. Complete drawings available. Backed by years of engineering experience, hundreds of installations. May we help?

JEFFREY

THE JEFFREY MANUFACTURING CO.
Columbus 16, Ohio

▼ REFER TO IEN-5297 ▼

REDUCE CONTROL COSTS TO A FRACTION

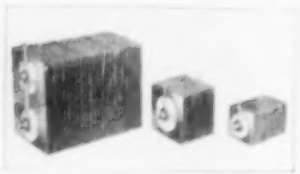
with the VICKERS (tm) Standard MAGNETIC AMPLIFIER

VICKERS ELECTRIC DIVISION

▼ REFER TO IEN-5298 ▼

RECTIFYING . . Selenium assemblies with 1 by 1 in. to 12 by 52 in. plates

Source: SYNTRON CO.
410 Lexington Ave., Homer City, Pa.



▼ REFER TO IEN-5299 ▼

SOLDERING . . Wire form solder and flux for general purpose uses

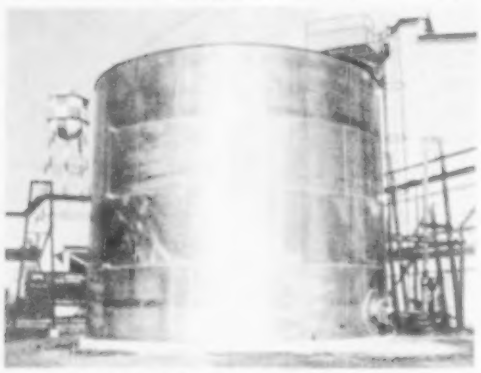
Source: FARRELLOY CO.
1249 N. 26th St., Philadelphia 21, Pa.

▼ REFER TO IEN-5300 ▼

POLISHING . . Diamond powders in kit containing six popular grades

Source: ELGIN NATIONAL WATCH CO.
105-9 National St., Elgin, Ill.

▼ REFER TO IEN-5301 ▼



Hydrogen tank used for storing ammonium nitrate at a chemical plant.

Storing Corrosive Materials?

CHICAGO BRIDGE & IRON COMPANY
2123 McCormick Building • Chicago 4, Illinois
Atlanta • Birmingham • Boston • Cleveland • Detroit • Houston
Los Angeles • New York • Philadelphia • Salt Lake City
San Francisco • Seattle • Tulsa
Plants in BIRMINGHAM, CHICAGO, SALT LAKE CITY and GREENVILLE, PA.

▼ REFER TO IEN-5302 ▼

CESCO's Newest Safety Spectacle

NOW AVAILABLE in 2 Eye Sizes . . .

42 x 45 mm and 45 x 48 mm

LOOK at these exceptional features

- Recommended for frontal protection and where unusual impact requirements exist.
- Frames made of non-flammable, durable plastic.
- Attractive appearance—smart and stylish as personal glasses.
- Lightweight, comfortable to wear—special nose bridge provides greater bearing surface, eliminating pressure.
- Covered by other lenses without Precision cable temples hold spectacles in position at all times.

Be sure to have a copy of the latest CESCO CATALOG

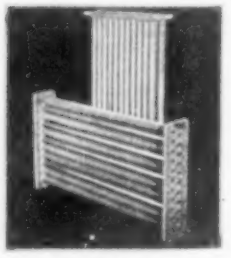
CHICAGO EYE SHIELD COMPANY
1326 Warren Boulevard • Chicago 12, Illinois

CESCO FOR SAFETY

▼ REFER TO IEN-5303 ▼

ROME HELICAL-FIN TUBING

Over 90 Sizes in Production



- Water Cooled Refrigerator Condensers
- Air Cooled Refrigerator Condensers
- Liquid Coolers
- Dry Cooling Tank Refrigerator Coils
- Air Conditioner Condensers and Aftercoolers
- Oil Coolers for Diesel Engines
- Fan Type Air Heating Coils
- Fan Type Air Cooling Coils
- Fan Type Evaporator and Header Coils
- Refrigerator Evaporators and Brine Coils
- Carbon Air Surface Coolers
- Room Heating Convector (Exposed Radiator)
- Diesel and Truck Engine Cooling Radiator
- Railway Diesel Engine Cooling Radiator

Rome Helical-Fin Tubing is used and specified by nearly all large Nationally known manufacturers of heat exchanging equipment

ROME TURNEY RADIATOR COMPANY

200 EAST FRONT STREET ROME, N. Y.

▼ REFER TO IEN-5304 ▼

Put these advantages in your product with Marvinol

Marvinol

Naugatuck Chemical

▼ Write for data to IEN - 5305 ▼

YOU DON'T HAVE TO PAMPER the "King-clip" VALVE!

Fig. 1640 I. B. & M. King Clip Valve

Ruggedly proportioned throughout, the "King-clip" embodies those distinctive features convenient, non-corrosive trim bearing large diameter rugged tapered bronze disc, suited to heavy service usage unlike stuffing box threads that resist corrosion and stripping, bolted bonnet, gland. Lunkenheimer-developed non-rotating disc eliminates stem thread failure due to wear, easy to disassemble for servicing. Available in iron body, steel trimmed, and all-steel, for a variety of engineering usages, services or corrosives.

THE LUNKENHEIMER CO.

Ask for Circular No. 581

▼ Write for data to IEN - 5306 ▼

Another product designed with Du Pont NEOPRENE

ONE MILLION HOT TONS RIDE NEOPRENE ROAD

Coke conveyor belt in operation 24 hours a day for three years . . . still in good condition

A tough job! In a mixture of crushed coke and blast furnace gas an ordinary belt carrying coke from Number 2a loading platform to this plant. Then a belt made of neoprene. Du Pont's most wide-ranging rubber was picked. After three years, it would be carrying coke . . . and good coke to market for years to come.

FREE! THE NEOPRENE NOTEBOOK

NEOPRENE

The rubber made by Du Pont since 1932

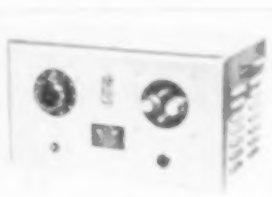
DUPONT

BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

▼ Write for data to IEN - 5308 ▼

TESTING . . Variable current unit supplies low voltage ac. for test use

Source: CUSTOM ELECTRIC CONTROLLER CO. 117-21 Cross St., Harrison, N. J.



Multi-Amp . . . Additional uses . . . Compares with . . . Base: Y-204 . . . baked enamels

▼ Write for data to IEN - 5309 ▼

PAINTING . . Synthetic enamel for product finish, air dries quickly

Source: UNITED LACQUER MFG. CORP. 1003 W. Elizabeth Ave., Linden, N. J.

▼ Write for data to IEN - 5310 ▼

SAWING . . Band saw blade dispenser holds 100 foot reel of coiled blade

Source: L. S. STARRETT CO. 100 Starrett St., Athol, Mass.

New package . . . All Makes of Things And All Other Products Are Listed In THOMAS REGISTER . . . Description . . . Ratings . . . See Page 94

▼ Write for data to IEN - 5311 ▼

Stanzoils

Hot 'n Cold Neoprene Coated Gloves

Work Comfort in Temperature Extremes from 85° to -314° F.

The Stanzoil Hot 'n Cold Glove is designed expressly for use in certain areas where liquid nitrogen is present in extremely high and extremely low temperatures is required. Several insulating layers of fabric material are coated with refrigerated DuPont milled neoprene that resists damage from oils, grease and caustics.

Tests on this glove show that work is possible in liquids at temperatures of 85° below zero and 314° above zero, Fahrenheit scale. Laboratory workers hands were comfortable after a half hour's immersion in a liquid whose temperature was -317° F.

For more information, complete catalog and prices write on Refer to Symbol No. R-28. The Pioneer Rubber Company, 655 Tyler Road, West Alhambra, Los Angeles 32, California.

OVER 30 Years OF QUALITY GLOVE MAKING

STANZOIL PIONEER

▼ Write for data to IEN - 5312 ▼

NEW TANK FLOAT SWITCH

CLASS 9037 EG

FOR CONDENSATE PUMPS

VERTICAL OR HORIZONTAL

• Designed primarily for small condensate pump control. Features positive action operating mechanism of sealed hermetically Thermostat, of long wire and silicone construction, provides sensitive float travel for varying water level requirements. Available in electrical ratings of 1 HP, 115 Volts, 230 Volts, and 440 Volts, single and polyphase A. C. and to HP, 115, 230 Volts D. C.

Write for Bulletin 9037 EG. Square D Company, 4041 North Richards Street, Milwaukee 12, Wisconsin

SQUARE D COMPANY

▼ Write for data to IEN - 5313 ▼

You Can be Sure of Clean Dry Air for your Compressed Air Tools

3500 Gallons

1 YEAR'S water extraction from air lines equipped with Adams Aftercooler and Cyclone Separator.

with ADAMS Aftercooler and Cyclone Separator

• Reduces moisture in air supply to within 10° of the cooling water. Adams Aftercooler is simple and is mounted directly on the compressor. Cyclone Separator removes moisture and oil vapor from air lines.

PROTECTS tools from rust, corrosion, gumming.

PROTECTS air compressor from water hammer, scoring.

PREVENTS freezing of paint or enamel.

AVOIDS expensive shut-downs for repairs to pneumatic tools.

PROLONGS the life of tools, pipe lines, air compressor and tools.

Write for more Bulletin 110

R. P. ADAMS CO., INC. 219 E. PARK DRIVE BUFFALO 17, N. Y.

▼ Write for data to IEN - 5314 ▼

in cable insulation... there's nothing like NATURAL RUBBER

...and in natural rubber, there's nothing like WILD UP-RIVER FINE PARA

Proved dependable for nearly 75 years! Here's the record of extreme cables made with the finest grade of natural rubber... Wild Up-River Fine Para ... the only kind used in Okonite and Okonite-Kerite.

Though Okonite research engineers were free to employ manmade synthetics, their experience shows that these materials have limitations as well as advantages ... that anticipated performance based on laboratory tests is not as reliable as established records.

Research Publication OR 1034 gives full information why cable insulations made with Up-River Fine Para grade of natural rubber are recommended wherever long life and extreme security are first considerations. The Okonite Company, Passaic, N. J.

THE BEST CABLE IS YOUR BEST POLICY

OKONITE insulated wires and cables

▼ REQUEST—Identify by IEN-5315 if you write the maker ▼

▼ REQUEST—Identify by IEN-5316 if you write the maker ▼

PLENTY OF ELBOW ROOM!

You'll see at a glance that the outstanding design of this new Manchke machine provides more elbow room for loading and polishing operations than was ever before possible. No obstructions under the spindle between the wheels and side walls of the base. Ideal where greater freedom of action in work with bulky pieces is needed. Unusual spindle rigidity. Maximum dependability of accurate bearing alignment. Many unique features.

Also made with two spindles and two motors in various sizes ranging from 1 HP to 10 HP.

The new buffing spindle—as one of the dozens of other Manchke grinding and polishing machines—may be the answer to your production problem. Tell us about it, we'll try to help.

VONNEGUT MOULDER CORPORATION
1827 MADISON AVENUE • INDIANAPOLIS 25, INDIANA

▼ REQUEST—Identify by IEN-5317 if you write the maker ▼

TEMCO

LOW COST FURNACES

THERMO ELECTRIC MANUFACTURING CO.

▼ REQUEST—Identify by IEN-5318 if you write the maker ▼

LAYOUT . . Plotting table for mechanical layout work, 4 by 6 ft.

Source: FAIRCHILD CAMERA & INSTRUMENT CORP.
51-55 W. Union St., Pasadena 1, Calif.

▼ REQUEST—Identify by IEN-5319 if you write the maker ▼

SWITCH . . Foot operated design, rocker top, 35 amp. on 110 volt ac.

Source: SIGNAL ELECTRIC ENGINEERING CO.
177-81 Hopewell Ave., Aliquippa, Pa.

▼ REQUEST—Identify by IEN-5320 if you write the maker ▼

STATIC ELIMINATOR . . Uses polonium, dissipates static at delicate balances

Source: E. MACHLETT & SON
220 E. 23rd St., 7th Floor, New York 10, N. Y.

All Makers of Items And All Other Products Are Listed in THOMAS REGISTER — Descriptions — Ratings — See Page 96

▼ REQUEST—Identify by IEN-5321 if you write the maker ▼

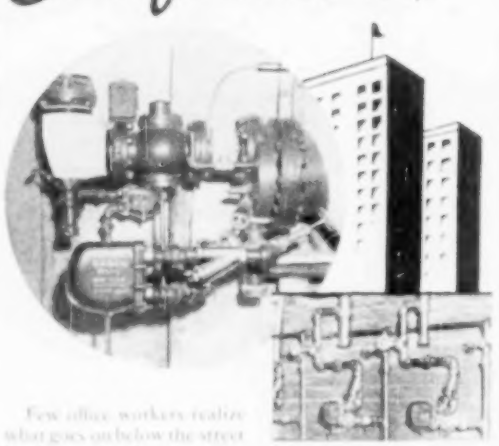
MERRILL
LIFTING
CLAMPS
THE HEAVIER THE LOAD
THE TIGHTER THE GRIP!
Safer and Speedier Lifting at less Cost... have made MERRILL-Vols LIFTING CLAMPS the choice of large Steel Mills everywhere.
SAFER
• Safety factor of 3 to 1.
• Factory tested at double rated capacity.
GREATER SPEED AT LESS COST
• Entirely Drop Forged and Heat Treated.
• Working parts entirely enclosed.
• Pins do not rotate in frame eliminating wear.
Available in Stainless Steel.
Sold by Better Distributors Everywhere.
MERRILL BROTHERS
Producers of DROP FORGED SHACKLES, CLEVIS NUTS, TURNBUCKLES & EYE BOLTS
Write for new CATALOG 10

▼ REQUEST—Identify by IEN-5322 if you write the maker ▼

Nutting
FLOOR TRUCKS
WHEELS-CASTERS
Trucker
"I'll Keep Things Moving For You!—The Boys all like my easy rolling style"
says the Nutting Trucker
A Great Variety of Standard Types
Our 59th Year
NUTTING TRUCK AND CASTER COMPANY
2011 DIVISION STREET, FARIBAULT, MINNESOTA

▼ REQUEST—Identify by IEN-5323 if you write the maker ▼

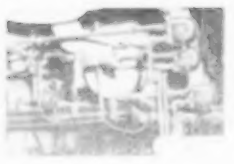
HOW SARCO KEEPS A BIG OFFICE BUILDING *Comfortable!*



Few office workers realize what goes on below the street level in order that they may work in comfort and without interruption.

But the engineer of the Equitable Building, Chicago can tell you that Sarco is the heart of the heating and air conditioning system in this big building. In fact, he says he "wouldn't have anything else."

Engineered primarily for service, such a system also results in economical fuel consumption.



YOU CAN HAVE THIS SERVICE TOO . . .

The Sarco Representative near you will look over your building without obligation. You will be surprised to see how much you be done and how little it will cost.

SARCO SAVES STEAM

SARCO COMPANY, INC.
Represented in Principal Cities
Empire State Building, New York 1, N.Y.
SARCO CANADA, LTD., TORONTO 5, ONTARIO

IMPROVES PRODUCT QUALITY AND OUTPUT

▼ REPORT—Check for IEN-5325 if you write the maker ▼

DIRECT VEEDER-READINGS

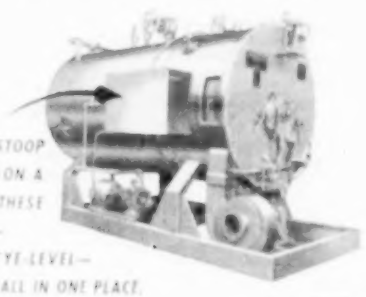
help you keep a line on Linear Production

It's as simple as this: Textiles and other materials pass under the smooth-surfaced twin wheels. And the worm-drive gears inside the counter cause the 5 figures to indicate directly — in yards, feet, meters, or other units. The wheels are one foot in circumference — and other types of wheels, even grooved ones, can be had, for other purposes and materials. This Reset Worm-Driven Counter is one of scores of Standard Veeder-Root Counters. Write for Condensed Catalog to

VEEDER-ROOT INC., HARTFORD 2, CONN.

▼ REPORT—Check for IEN-5326 if you write the maker ▼

AMESTEAM GENERATOR ...Provides EYE-LEVEL CONTROLS



NO NEED TO STOOP OR TO CLIMB ON A BOX TO SEE THESE CONTROLS— THEY'RE AT EYE-LEVEL— AND THEY'RE ALL IN ONE PLACE.

AMESTEAM Generator design provides a better automatic Unit — soundly engineered to meet your needs.

Controls are mounted in a sturdy metal panel box, located at eye-level — not only for your convenience in operation, but to provide maximum protection against damage by dust, splashing or carelessness.

That's only one of the AMESTEAM Generator's many advantages. All auxiliary equipment is completely accessible — simplified rear end design provides maximum ease of inspection, maintenance and cleaning — saving you time and money.

It all adds up to the easiest boiler to operate, clean and maintain — and it generates steam quickly, efficiently and at low cost.

Sizes 10 to 500 HP—15 to 200 lbs. —arranged for Oil, Gas or Oil-Gas Combination.

AMES IRON WORKS

Oswego, N. Y.

Builders of Better Boilers Since 1868

Manufactured under License in Canada by AMES-MOLSON Montreal

AMES IRON WORKS
Box 1006, Oswego, N. Y.

I would like to know more about Amesteam Generators. Please send your free bulletin.

Name
Company
Address
City Zone State

▼ REPORT—Check for IEN-5328 if you write the maker ▼

PUMP . . Portable centrifugal, engine-driven, self-priming, 58 gpm.

Source: GOULDS PUMPS INC. 301 Fall St., Seneca Falls, N. Y.

The housing . . . Engine and pump . . .

▼ REPORT—Check for IEN-5329 if you write the maker ▼

TIMING . . Adjustable interval unit actuates control and signal circuits

Source: DIMCO-GRAY CO. 208 E. 6th St., Dayton 2, Ohio

Gearing . . . The assembly . . .

All Models of This Unit & Other Products Are Listed In THOMAS REGISTER . . . Manufacturers' Ratings . . . See Page 96

▼ FREE Check for IEN-5330 if you write the maker ▼

Beat Heat Fatigue with *McDonald*

1·4·U SALT TABLETS

In the handy throw away dispensing carton.

In three types — (1) popular enteric coated tablet (eliminating risk of nausea), (2) salt plus dextrose, and (3) plain salt tablets. Disposable cartons in two sizes — economy dispenser of 1,000 or handy 500-tablet dispenser.

WRITE FOR CIRCULAR

B. F. McDONALD CO.

Makers and Distributors of Industrial Safety Equipment

5110 SOUTH HOOVER ST., LOS ANGELES 37, CALIF.

Other Offices in San Francisco & Houston

▼ REPORT—Check for IEN-5331 if you write the maker ▼

Production engineers use "Dot-Print" Wood Block Stamp Pads and Opaque inks for "the hard cases that defy ordinary pressure. So cut down on rust shipments and returned rejects on account of poor identification. Use "Dot-Print" for shipping room desk, for metals and cartons. You are assured of permanently legible markings. Many bright colors available.

- For marking on most porous surfaces such as . . .
- CANVAS, METAL, GLASS, PLASTIC, RUBBER, PAPER AND MANY OTHERS.

▼ REPORT—Check for IEN-5332 if you write the maker ▼

"Not a Single Solenoid has Burned Out on Our Water Valves Since We Protected them with FUSETRON dual-element FUSES!"

"During the winter of 1948-49 solenoids on five of our water valves burned out due to freezing of the water.

The replacement costs . . . and [illegible] for the labor and operating costs [illegible] much higher.

To prevent these troubles we installed a Fusetron dual-element fuse on every unit . . .

During the winter of 1949-50 we had just one small unit fail [illegible] . . . but we did blow under a few Fusetron fuses.

The cost of replacing these Fusetron fuses was nothing as the units are still here, and if they hadn't been . . .

E. C. Wills, Chief Engineer
U. S. Navy Aggregate Plant
Pomona, California

Fusetron Fuses

Give All-Purpose 10 Point Protection

1. Protect against short-circuits.
2. Protect against overload. [illegible]
3. Protect against troubles [illegible] to excessive heating — [illegible] results in much cooler operation.
4. Provide thermal protection — for cables and [illegible] against damage from heating due to [illegible].
5. Protect motors against [illegible] from overheating.
6. Prevent nuisance opening due to [illegible].
7. Give [illegible] thermal protection to [illegible] without extra cost.
8. Make coordination of relief [illegible] simple and [illegible].
9. Protect against waste of time and money — [illegible] use of proper size fuses and results.
10. Protect [illegible] investment and [illegible].

DON'T RISK LOSSES

FUSETRON — TRUSTWORTHY NAMES IN ELECTRICAL PROTECTION — BUSS

FUSETRON is a trade-mark of BUSSMANN MFG. CO., Division of McGraw Electric Co., University at Jefferson St. Louis 7, Mo.

▼ REFER TO IEN - 5334 ▼

CAMBRIDGE Moisture Indicators

Cambridge Moisture Indicators are accurate, rugged instruments built for continuous shop service to indicate moisture content of various hygroscopic materials. Insertion model has measuring element on thread on a blade. Surface model has the element mounted on under side for surface contact. Adjustable pointer is provided for fixing reference points of surrounding air.

For use in Hat, Printing, Textile, Food industries and in processing Paper, Wood, Cotton, Rayon, Fur, Cereals, etc.

Send For literature

CAMBRIDGE
INSTRUMENT COMPANY, Inc.
3732 GRAND CENTRAL TERMINAL NEW YORK 17, N. Y.
Precision Manufacturers of
PRECISION INSTRUMENTS

▼ REFER TO IEN - 5335 ▼

REDUCE LABOR COSTS
WITH THESE SECTIONAL
ALUMINUM SCAFFOLDS

FRAME TYPE

by the makers of Daly Model ladders and Scaffolding

- *Light in Weight* — The latest in rolling scaffolds.
- *Easy to Erect* — All-metal parts are lighter and easier to handle.
- *Safe* — Cross bracing assures rigidity. Interchangeable parts permit scaffold of one or more sections.

Two Types — Stairway (Illust.) and ladder frame type. Assembly sections of both are 6'6" x 5'.

LADDER SCAFFOLDS

- Ideal for use in narrow spaces. Rolls through 30" doorway.
- Various heights possible. Ladders are 5'1", 5'8" or 6' high.
- Various spacings available. 10 shown.

Write for free Bulletins PSS-18 and PSS-19.

A Complete Nationwide Scaffolding Service, based on seventy years of experience in designing, making and supplying all types of off-the-ground safety equipment. Offices in most...

WHAT you need WHERE you need it WHEN you need it

...for Greater Safety - Efficiency - Economy
THE PATENT SCAFFOLDING CO., Inc.
38-21 12th St., Dept. IE, Long Island City 1, New York
In Your Classified Telephone Directory for nearest office

▼ REFER TO IEN - 5337 ▼

ROCK DRILLING . . Carbide tipped drill with spiral lead for use in masonry

Source: NEW ENGLAND CARBIDE TOOL CO.
58-62 Brookline St., Cambridge 39, Mass.

The spiral lead on the shank of this new Carbide-Tipped tool is designed to prevent drill pinching and wobble, and to remove the dust faster. The carbide tip is extra deep and head is flat. The 1/4" shank is a free-cutting drill rod and is ground to a suitable gauge for a variable gauge [illegible]

Twelve sizes in the range from 3/16 to 1 in. in diameter. The smaller [illegible] and the larger three [illegible] 3/8 in. diameter. Lengths from 6" to 8" in the 3/16 in. size; 6" to 10" in the 1/4 in. size; 6" to 12" in the 5/16 in. size; 6" to 12" in the 3/8 in. size; 6" to 12" in the 1/2 in. size; 6" to 12" in the 5/8 in. size; 6" to 12" in the 3/4 in. size; 6" to 12" in the 1 in. size. Shank diameters are guaranteed to tolerance of .32 and .001 at $1.90 to $2.70 each. Quantity prices [illegible] in lots of 12 and over at $1.80 to $2.50 each. Quantity prices [illegible] in lots of 50 and over at $1.70 to $2.30 each.

▼ REFER TO IEN - 5338 ▼

FLOORS . . Resurfacing material for concrete floors, traffic in 24 hrs.

Source: MONROE CO.
10701-5 Quebec Ave., Cleveland 6, Ohio

Impervious to oil and grease

Vroom [illegible] resurfacing material [illegible] concrete floors [illegible] traffic in 24 hrs. [illegible] [illegible] [illegible]

▼ BRIEFITS—Identify by IEN-5344 if you write the maker. ▼

WIRE CLOTH

WISSCO WICKWIRE SPENCER STEEL DIVISION CLINTON, MASSACHUSETTS

CALWICO THE CALIFORNIA WIRE CLOTH CORP. OAKLAND, CALIFORNIA

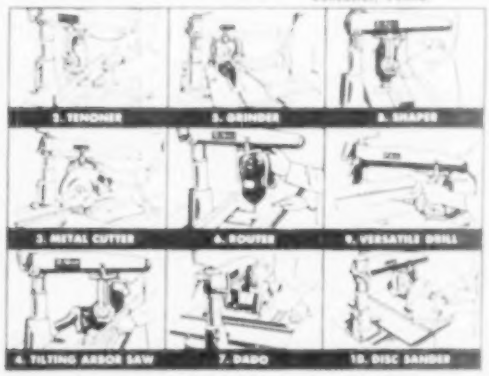
DIVISIONS OF THE COLORADO FUEL AND IRON CORPORATION, DENVER, COLORADO

▼ BRIEFITS—Identify by IEN-5345 if you write the maker. ▼

10 POWER MACHINES IN ONE!

7. RADIAL ARM SAW

DE WALT INC.
106 Fountain Avenue
Lancaster, Penna.



▼ BRIEFITS—Identify by IEN-5346 if you write the maker. ▼

SAVE UP TO 80%

IN FIXTURE RE-WORK COSTS

VLIER Automatic TORQUE THUMB SCREWS

VLIER torque thumb screws replace "home made" devices used to support work in jigs and fixtures. End pressures pre-set by factory makes it *impossible* to warp work pieces, jigs and fixtures by over-tightening. Finger-turning sharply cuts set-up time. Send for complete catalog.

FREE TRIAL!
Send for sample torque thumb screw today, specifying screw size and holding pressure desired. Return after 10 days if not satisfied.

VLIER MANUFACTURING CO.
4852 Beverly Boulevard, Los Angeles 4, California

▼ BRIEFITS—Identify by IEN-5347 if you write the maker. ▼

DRIVE . . Hydraulic actuator double acting, 1/2 to 2 ton ratings

Source: BENJAMIN LASSMAN & SON
50 Oliver Bldg., Pittsburgh 22, Pa.

Hydraulic

Three sizes

Linear speed

Bulletin

▼ BRIEFITS—Identify by IEN-5348 if you write the maker. ▼

PACKAGING . . Automatic machines to wrap crackers and pack lard in bags

Source: PACKAGE MACHINERY CO.
50 Chestnut St., East Longmeadow, Mass.

Two examples

Model FA special

Pakit

In Service of These and All Other Products Are Listed in THOMAS REGISTER Descriptions Ratings See Page 50

▼ BRIEFITS—Identify by IEN-5349 if you write the maker. ▼

PAGE FENCE *Since 1883*

• AMERICA'S FIRST WIRE FENCE •

Fence AT WORK

• Yes, Page Chain Link Fence works day and night as protector of property and property owners' interests. To meet industry's productive requirements and resulting human relationships to maintain and safeguard. Fence may be enjoying its maximum and unsightly rust. For you we have a complete post bracket and tension wire in the several styles of Page Fence and Gates and the choice of surface treatments. It helps save you and yourself the cost of heavy gardening and maintenance. Page Fence is long experienced. Page Fence guarantees and your satisfaction conditions. Name and address and we will send with your booklet 106-142. May we send you a copy?

Write to PAGE FENCE ASSOCIATION
In Montreal, Que., Atlanta, Bridgeport, Chicago, Denver, Detroit, Los Angeles, Philadelphia, Pittsburgh, New York or San Francisco

PRODUCT OF PAGE STEEL & WIRE DIVISION OF AMERICAN CHAIN & CABLE COMPANY, INC.

▼ BRIEFITS—Identify by IEN-5350 if you write the maker. ▼

STACKBIN [illegible]

IMMEDIATE SHIPMENT

Manufactured and sold by licensed companies
for Wickwire-Spencer Steel Division

Write Stackbin Corp., 1077 Main St., Pawtucket, R. I.

STACKBIN "Stacked and [illegible]" **SYSTEM**

▼ BRIEFITS—Identify by IEN-5351 if you write the maker. ▼

Welding Production Up 50%
Labor Costs Down 50%

OUR CLAIM—*PROVEN* BY OUR CUSTOMERS

"Efficiency on repetitive work up to 80% and better"—Black, Sivalls & Bryson, Inc., Kansas City, Mo.

"Reduced labor cost approximately 50% over" hand methods"—Dallas Tank Company, Dallas, Texas.

Worthington-Ransome Turning Rolls room rents are from per day. All welds made in "down hand" position with heavier electrodes for neater, better welds.

Standard capacities from 10 to 75 tons up to 14 ft. diameter. Also self-propelled Rolls for heavier or longer work also available. Other positioners with capacities from 100 lbs. to 30 tons.

Write for Bulletin 128 Worthington Pump and Machinery Corporation, Welding and Assembly Positioning Equipment Division, Harrison, New Jersey.

WORTHINGTON

WORTHINGTON-RANSOME WELDING POSITIONER

▼ BRIEFITS—Identify by IEN-5352 if you write the maker. ▼

Try this **BRONZE BAR STOCK...for**

Faster Delivery ...Lower Cost!

N·B·M "Tiger" Bronze stocks are conveniently located for prompt delivery—at prices that will keep cut costs in your plant or product.

If you're looking for better [illegible] or [illegible] at lower cost, get the facts from the metal men who know N·B·M "Tiger" Bronze. Write today for information.

ASK FOR
1902
1951 BOOKLET

N·B·M

AMERICAN Brake Shoe COMPANY

NATIONAL BEARING DIVISION

PLANTS AT LONG ISLAND CITY, N. Y. AND [illegible]

▼ BRIEFITS—Given by IEN - 5353 If you write the maker — ▼

Sleeve Bearings *Made to Order*

WRITE for an appointment — no obligation

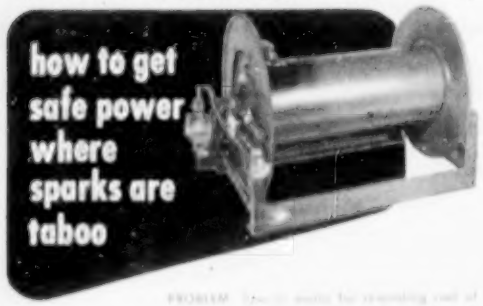
BRONZE and BABBITT

STEEL and BABBITT

CAST BRONZE — LEDALOY — THIN WALL BEARINGS

Johnson Bronze
SLEEVE BEARING HEADQUARTERS
476 SOUTH MILL STREET • NEW CASTLE, PA.

▼ BRIEFITS—Given by IEN - 5354 If you write the maker — ▼



ASK FOR APPLICATION IDEAS BOOKLET
ALSO GAST CATALOG

GAST CATALOG — SENT FREE

AIR MAY BE YOUR ANSWER!

GAST ROTARY — AIR MOTORS · COMPRESSORS · VACUUM PUMPS

▼ BRIEFITS—Given by IEN - 5355 If you write the maker — ▼

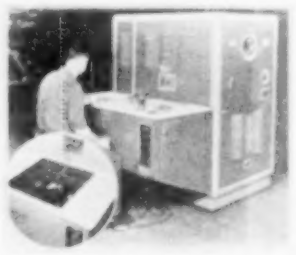
Here's what to look for in Unit Heaters

MODINE UNIT HEATERS

▼ BRIEFITS—Given by IEN - 5356 If you write the maker — ▼

HEATING . . Work table and quench for induction heating and heat treating

Source: LEPEL HIGH FREQUENCY LABORATORIES INC
39 W. 60th St., 6th Fl. New York 23, N. Y.



▼ BRIEFITS—Given by IEN - 5357 If you write the maker — ▼

CONTROL . . Photoelectric equipment governs cutoff of moving printed web

Source: GENERAL ELECTRIC CO.
Dept. 6X-201, Schenectady 5, N. Y.

▼ BRIEFITS—Given by IEN - 5358 If you write the maker — ▼

MARKING . . Self-adhesive labels, resistant to solvents, high temperature

Source: WESTERN LITHOGRAPH CO.
602-6 E. 2nd St., Los Angeles 54, Calif.

▼ BRIEFITS—Given by IEN - 5359 If you write the maker — ▼

LOOK TO THE FUSE LEADER FOR PRODUCTION PROGRESS

Only 3 PARTS

WARE FUSE CORPORATION

▼ BRIEFITS—Given by IEN - 5360 If you write the maker — ▼

For Permanently Tight Joints

Garlock Pipe Thread Compound is a superior material for a permanently tight joint. Does not harden or shrink, does not drip, does not spoil or deteriorate. Keeps joints from "freezing" and protects against rust and corrosion. Easy to apply. Use *Type A* against steam, water, air, gas or alcohol; use *Type B* against oils or solvents. 1-lb., 2-lb., 4-lb. cans and in larger containers.

Write for folder!

THE GARLOCK PACKING CO.
PALMYRA, NEW YORK

Garlock PIPE THREAD COMPOUND

▼ BRIEFITS—Given by IEN - 5361 If you write the maker — ▼

GEAREX ROTARY PUMPS

move more— for less!

ADDITIONAL ADVANTAGES

Sier-Bath
GEAR and PUMP CO., Inc.
9235 HUDSON BOULEVARD — NORTH BERGEN, N. J.

▼ BRIEFITS—Given by IEN - 5362 If you write the maker — ▼

Don't take less than a *Leach* for Unsurpassed Performance

LEACH RELAY CO.
5915 AVALON BOULEVARD • LOS ANGELES 3, CALIF.

▼ Bassick—Inquiry to IEN-5363 ▼

Series "99"
Bassick all purpose truck casters 2 in. 8 in. sizes, heavy gauge steel

How this caster tackles your

Reducible 30%

You can save on materials handling—the 80% of cost that still reducible—with Bassick Series "99" Truck Casters. Here's how they cut expenses: 1. Reduce labor cost . . . move parts and products quicker. 2. Reduce wear and tear on floors, trucks and dollies. Built for quiet, easy swiveling and long service life. Write for free folder on Bassick Series "99" Truck Casters. THE BASSICK COMPANY, Bridgeport 2, Conn. Division of Stewart-Warner Corp. In Canada: Bassick Division, Stewart-Warner-Alemite Corp., Ltd., Belleville, Ont.

Bassick MAKING MORE KINDS OF CASTERS . . . MAKING CASTERS DO MORE

▼ Acme Steel—Inquiry to IEN-5364 ▼

"Drive thy business —let not that drive thee."

These days thee must work a month for the taxgatherer before thee begins to work for thyself. Keep a firm hand on the wheel of savings to navigate "well after taxes."

How long, Mr. Comptroller, since you broke "Maxwellian" down into its multitudes of uns? Do it—and you may uncover profit leaks that are outflowing real money from the profit column.

Most companies find plenty of such leaks to plug in packaging, shipping and materials handling operations. Acme sales engineers are specialists in finding those leaks . . . then plugging them. In 9 out of 10 cases we can point the way to greater efficiency and good solid thrift with Acme Merchants and Acme flat steel strapping, Acme stitching machines and wire, and other Acme Steel products.

We have already proved this for the more than 30,000 customers we now serve. A typical case is reported below. It takes just a minute to read it—and call us in.

Acme sales engineers, technical facilities and nation-wide service are ready to start helping you. Reach for the telephone and call the Acme Steel service office nearest you. There are 16 of these offices in the principal cities of the U.S. and Canada. Or send the coupon for details on your special field.

MATERIALS COST CUT 30%
TIME SAVED 30%

ACME STEEL

ATTACH THIS COUPON TO YOUR BUSINESS LETTERHEAD

ACME STEEL COMPANY, Dept. 10-Sales
2840 Archer Avenue, Chicago 8, Illinois

We manufacture . . .

Please have sales engineer call.

Please send me copies of Acme Reference Manuals checked:

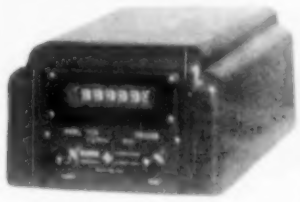
- Packaging, Shipping, Materials Handling
- Shipping Carload and L.C.L.
- Bag and Box Assembly
- Product Assembly

Name
Position
Company
Street
City Zone State

▼ Atomic Instrument—Inquiry to IEN-5366 ▼

COUNTING . . Electric reset register accumulates a count to six digit total

Source: ATOMIC INSTRUMENT CO.
166 Charles St., Boston 14, Mass.



Model 1238 is a new electric counter with a motor-drive reset mechanism. It is arranged on closed circuit for 10 seconds or more at 60 cps duty. Reset can be initiated by a switch on the counter panel, by push-button or by auxiliary contacts on left at a remote location, or by electrical connection to another piece of equipment. A relay relay prevents a jamming due to false actuation.

Operating speed is to 72 counts per second, counts accumulated register about 1 second. Operation is on 115 volts 50 . . . cycle ac, or is built to do power supply. Unit price at $100 . . . assembly is in a cast aluminum housing that measures about 6 by 6½ in. to width and length and weighs 8 pounds. Knob adjustment is a thumb assembly for ease in use.

▼ Eriez—Inquiry to IEN-5367 ▼

SEPARATING . . Magnetic pulley applies at head end of belt conveyor

Source: ERIEZ MFG. CO.
1303 E. 12th St., Erie, Pa.

For use on dry materials

Permanent magnets . . . self-contained assembly equals the separating action of electro-magnets . . . range from 3 inches . . . Pulley . . . 20 inches wide with cast . . . 22 to 30 in. Belts . . . Energy cost is . . . attached to the pulley serving through the belt and is carried around to the under side where it drops to fall into a separate . . . or magnetic chute at the belt across the pulley.

▼ Jones Motrola—Inquiry to IEN-5368 ▼

SANDING . . Portable electric tool, 6 in. disc for metal, plastics, wood

Source: JONES MOTROLA CORP.
48-76 Fairfield Ave., Stamford, Conn.

Model 69 is a tool . . . 12 lbs. . . . handles equipped with a . . . control motor for operation on 110 volts ac . . . or 220 volts . . . rubber cushioned. The motor is mounted on ball bearings at . . . the spindle. Both . . . are sealed against . . . and no servicing . . . lubrication is not required. Weighs 6½ lb. portable . . . 1 . . . 1 inches.

All Makers of These Acme All-Other Products Are Listed In THOMAS' REGISTER — Descriptions — Ratings — Are Page 80

▼ Hannifin—Inquiry to IEN-5370 ▼

HANNIFIN

75 STANDARD MODELS

Hydraulic Presses

Engineered To Meet Your Requirements

IT'S EASY to get hydraulic presses engineered to meet your particular requirements when you choose from the Hannifin line. 75 standard models, plus many special designs, in capacities ranging from 5 ton to as high as 500 tons are available for handling standard and special production jobs: straightening—press fit assembly—forming—molding—broaching and similar operations. Hannifin design results permit modifications or variations from standard at moderate cost. Table size, gap, stroke, control equipment, and ram speed can be altered easily to suit special conditions. Take advantage of Hannifin engineering service—ask for recommendations.

SEND FOR THIS CATALOG

BULLETIN 130. How to Standardized Hydraulic Presses," contains detailed information on Series 1 Forming Presses, Series 2 Straightening Presses, and Series 3 Column Type Presses — Helpful specifications and engineering data. ASK FOR YOUR COPY.

HANNIFIN CORPORATION 1101 S. Kilbourn Ave., Chicago 24

▼ Sundstrand—Inquiry to IEN-5371 ▼

Select the best Balancing Tool for your work from Sundstrand's Complete Line

CAPACITIES

Swing	Between Shoulders	Weight Capacity
11 in.	10 in.	15 lbs.
17 in.	16 in.	100 lbs.
25 in.	24 in.	300 lbs.
41 in.	39 in.	1,000 lbs.
8 ft.	8 ft.	5,000 lbs.
8 ft.	8 ft.	10,000 lbs.
Any	Any	14,000 lbs.
43 in.	40 in.	800 lbs.

Here's a complete line of Balancing Tools which will save their cost quickly on balancing or truing operations. Accurately sensitive and durable, they provide a simple, reliable means for checking the balance of parts like gears, shafts, fly wheels, pulleys etc. The standard sizes available are shown in capacity chart.

You can obtain complete information on Sundstrand Balancing Tools by writing for bulletin No. 1E-54.

SUNDSTRAND MACHINE TOOL CO.
PNEUMATIC MACHINE DIVISION
ROCKFORD, ILLINOIS, U.S.A.

▼ Kent-Owens—Inquiry to IEN-5369 ▼

High Production Milling Saves Labor... Cuts Costs

For *high production with precision*—put the work on Kent-Owens Milling Machines! They're designed for rapid, easy set-up and operation. Rugged . . . with twin-post head mounting that assures balanced load—no chattering. Practical features throughout to help you *produce more . . . save labor . . . and reduce cost!* Write for bulletin. Kent-Owens Machine Co., Toledo, Ohio.

No. 3-20 Milling Machine
Table, 42" x 12"
Table travel, 20"

KENT-OWENS

Milling Machines

▼ Frasse—Inquiry to IEN-5372 ▼

Now! ELC Stainless

—Right from Warehouse Stock

Welded structure equipment that harnesses required annealing, or the use of expensive specialized grades, can now be more economically fabricated with ELC—a new development in corrosion resistant steels.

ELC is an extra low carbon stainless variation — now immediately available from Frasse warehouse stocks in Types 304 and 316—with a maximum .03 carbon content. Tests and field experience indicate that both these steels possess greater corrosion resistance adjacent to welds than their higher carbon counterparts. Note the superiority of Type 316 ELC over the regular analysis in the laboratory test illustrated.

Because of their lower cost in comparison to stabilized grades, Types 304 and 316 ELC are rescheduling changes for welding corrosion resistance applications. Detailed literature and engineering memoranda are available on request. Write today. Frasse & Co., Inc., 17 Frasse St., New York 13, N. Y. • Philadelphia • Buffalo • Syracuse

Regular Type 316

Type 316 ELC Stainless

FRASSE for STAINLESS STEELS and TUBING

BARS • SHEETS • STRIP • PLATES
TUBING • PIPE • VALVES • FITTINGS

BRIEFITY—(directly to IEN - 5373 if you write the maker)

modern design for modern sanitation

LP-20
Available in Black or White

OPEN FRONT AND BACK DESIGN . . . means quicker, easier cleaning. Cuts upkeep to a minimum. No germ-collecting crevices, always sanitary.

SELF-RAISING . . . Seat remains upright when not in use with bowl serving as urinal. Seat stays clean and dry.

SOLID PLASTIC . . . Shatter-proof, fire-proof. Plastic covered hinge is dirt free, moisture proof. Assures long life, low maintenance.

WRITE NOW for full details on Model LP-20 (illus.), Model LP-40 with self-raising hinge, and a complete line of commercial models.
DEPT. IE

SPERZEL
123 14th Avenue South
Minneapolis, Minnesota
All Sperzel Seats Fit Standard Bowls

BRIEFITY—(directly to IEN - 5374 if you write the maker)

CLEAN LARGE-AREA FLOORS

The Modern Faster Way

A *Finnell* SCRUBBER VACUUM

With a *Finnell* Scrubber-Vacuum, all four of the floor-cleaning operations can be done mechanically! A Finnell Scrubber-Vacuum (1) applies the cleanser, (2) scrubs, (3) rinses if required, and (4) picks up. With one or two operators, it can do a cleaning job better in half the time it takes a crew of six to eight using separate equipment for the several operations. The model shown above, for heavy duty requirements, has a cleaning capacity up to 8,750 sq. ft. per hour! For consultation, demonstration, or literature, phone or write nearest *Finnell* Branch or Finnell System, Inc., 2006 East Street, Elkhart, Indiana. Branch Offices in all principal cities of the United States and Canada.

FINNELL SYSTEM, INC.
Pioneers and Specialists in FLOOR-MAINTENANCE EQUIPMENT AND SUPPLIES
BRANCHES IN ALL PRINCIPAL CITIES

BRIEFITY—(directly to IEN - 5375 if you write the maker)

Check with FAIRFIELD *for FIVE GEARS*

- ✓ TOP QUALITY
- ✓ MASS PRODUCTION ECONOMY
- ✓ DEPENDABLE SERVICE
- ✓ UNEXCELLED FACILITIES
- ✓ ENGINEERING RECOMMENDATIONS

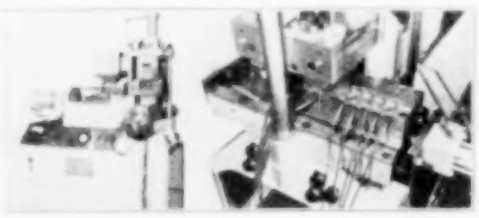
MAKE ... SPIRAL BEVEL • STRAIGHT BEVEL • HYPOID • HERRINGBONE • HELICAL • DIFFERENTIALS • SPUR • WORMS AND WORM GEARS

FAIRFIELD MANUFACTURING CO.
SOUTH 32nd AVENUE • LAFAYETTE, INDIANA

BRIEFITY—(directly to IEN - 5376 if you write the maker)

PLASTIC MOLDING . . Injection press for thermoplastics involving inserts

Source: MOSLO MACHINERY CO.
2441-45 Prospect Ave., Cleveland 15, Ohio



The lower part of the mold in this new Lupomatic vertical reciprocating hydraulic press is made as a double unit and is controlled to slide under the upper part by hydraulic pressure to position one side for molding while the other is in the open for unloading and placing a new set of inserts. Thus the press operator unloads and loads while the molding proceeds.

Control centers at two push-buttons, one for each hand, to open the mold, slide to the new position, recluse and lock the inserts, inject and cure. Molding area is in 40 square inches. Capacity is 2, 3 or 4 ounces. The setup shown is molding gray bodies on the contact finger ends of electric extension cords secured in position to right.

BRIEFITY—(directly to IEN - 5377 if you write the maker)

TESTING . . Portable hand instrument tests electric insulation, to 500 volts

Source: JAMES G. BIDDLE CO.
1314-18 Arch St., Philadelphia 7, Pa.

Bulletin 21-80-19 ... and leaves applies a constant ... voltage to test insulation. ... instrument is equipped with an ohm meter and a megohm meter ... three ranges ... 10, 20 and 40 megohms on ... 250, 500 and 1000 volts. One ... leads are made to ground ... and to the line at high terminals in the end of the ... housing. The crank mechanism ... the opposite end is fitted ... with a generator or slip clutch ... cranking speed change does not affect the voltage.

BRIEFITY—(directly to IEN - 5378 if you write the maker)

MANAGEMENT . . Social security legislation and its implications described in new AMA publication

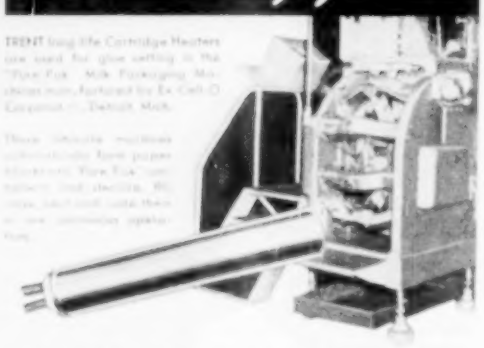
American Management Ass'n.
330 W. 42nd St., New York 18, N. Y.

Bulletin 81 ... the Association's Personnel Series covers a ... point session on practical aspects ... of Social Security legislation. It is a 41-page booklet ... gives 81 ... on topics such as ... liability legislation, Federal Social Security, labor relations aspects ... It includes a discussion and an additional ... on ... coverage, contributions, ... benefits, progress ...

All Makers of These And All Other Products Are Listed in THOMAS REGISTER . . Descriptions . . Ratings . . See Page 10

BRIEFITY—(directly to IEN - 5379 if you write the maker)

TRENT CARTRIDGE HEATERS *for Versatile Packaging Machine*



TRENT long life Cartridge Heaters are used for glue melting in the "Flow Pak" Milk Packaging Machine now featured by Ex-Cell-O Corporation, Detroit, Mich.

These versatile machines automatically form paper containers, "Flow Pak" fashion, and sterilize, fill, seal and date them at one continuous operation.

Where critical heat requirements must be met to insure continuous production, TRENT Cartridge Heaters will always demonstrate their superior quality and reliability. Features include: Multiple, non-corrosive, sheathed copper coil heaters with silicon impregnated glass covering, unbreakable cement cap instead of porcelain terminals.

TRENT Cartridge Heaters are ... sizes ... to 1½" diameter ... 24" long ... to suit ... Write for Bulletin 40-T for ...

TRENT INC
Electrically Heated Industrial Equipment
247 LEVERINGTON AVE. PHILA 27 PA.

BRIEFITY—(directly to IEN - 5380 if you write the maker)

ALOYCO introduces **RADICALLY NEW**
Needle Valve
and
Plug Gate Valve

... which eliminate ... operating difficulties ...
... found in ordinary bar stock valves, because they have:

1. OUTSIDE STEM THREADS — preventing corrosion and sticking of stem.
2. TEFLON PACKING — insuring sealing and leakage.
3. UNION BONNETS — adding strength and safety.
4. TEFLON RENEWABLE SEATS — eliminating galling and seizing — insuring constant tightness.

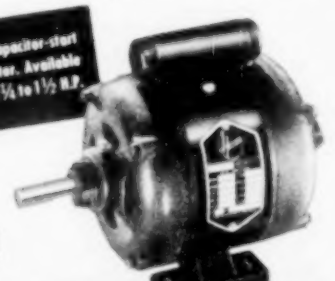
These valves combine high mechanical efficiency with maximum corrosion resistance. Write or telephone for Bulletin 201.

Patents Pending

ALLOY STEEL PRODUCTS CO., Inc.
1311 W. Elizabeth Ave., Linden, New Jersey
ATLANTA • CHICAGO • HOUSTON • LOS ANGELES
NEW YORK • PITTSBURGH • WILMINGTON

BRIEFITY—(directly to IEN - 5381 if you write the maker)

Single-phase, capacitor-start compressor motor. Available in ratings from ½ to 1½ H.P.



What makes a **HOOVER** ELECTRIC MOTOR ideal for compressors?

... and other hard-to-start appliances.

... High starting torque — 400% or more of full load amps. 300% is integral H.P. units.
... High running torque — 300% or more of full load amps. 250% is integral H.P. units.
... Full load speed maintained to within 2½% of rated value at 125% load.

THE HOOVER COMPANY
North Canton, Ohio
Kingston-Conley Division
Hampton Ave., North Plainfield, N. J.

BRIEFITY—(directly to IEN - 5382 if you write the maker)

TAKE A TIP FROM FIREMEN . . .

Specify
ALCO-LITE
Aluminum Ladders

Fire fighters need a ladder that is light for quick maneuverability, strong, fire safety under heavy loads, and durable for low maintenance and replacement costs. That is why ALCO-LITE Aluminum Ladders are favorites in fire departments throughout the country . . . and that is why you can use them profitably in your plant. ALCO-LITE Industrial Ladders are made from the same high-strength aluminum alloy as ALCO-LITE Fire Ladders . . . in fact, the Type 1A Single Wall Ladder illustrated is the identical ladder sold to fire departments. Write for Industrial Catalog describing the Type 1A and eight other ALCO-LITE Aluminum Ladders.

Pioneer Builders of Aluminum Industrial Ladders

ALCO-LITE ALUMINUM LADDERS
ALUMINUM LADDER COMPANY
100 CARBIS STREET • WORTHINGTON, PENNA.

▼ BRIEFIT—Identify by IEN-5383 ▼

22 Pages of Helpful Information on Dust Recovery Systems

If you are now using dust or fly ash recovery equipment in your plant or are planning industrial gas or dust equipment now or later, you will find this new Multiclone booklet full of helpful information. Illustrations and diagrams outline basic principles of dust recovery and how to utilize them for maximum efficiency. How to simplify your installations . . . how to conserve valuable plant space . . . how to get high recovery over a wide range of particle sizes, etc. A copy of this booklet should be in your files for reference and assistance in dust recovery applications. A free copy will gladly be sent you on request. Write today while supplies are adequate.

WESTERN Precipitation CORPORATION

▼ BRIEFIT—Identify by IEN-5384 ▼

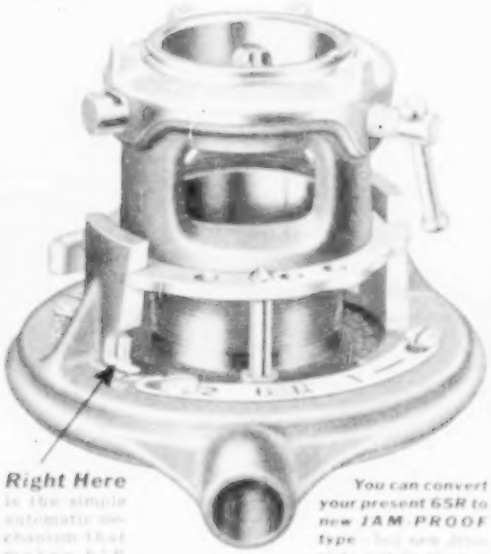
NOW New Streamlined

RIGID 65R

Die Stock that WON'T JAM

. . . while threading with power drive or by hand

New *JAM-PROOF* drive plate automatically kicks out driving ratchet pawl when standard length thread is cut. You don't have to watch it—lead screw can't jam on workholder.



Right Here is the simple automatic mechanism that makes 65R *Jam-Proof*

You can convert your present 65R to new JAM PROOF type—buy new drive plate, put in place of old plate.

All other RIGID 65R features remain the same

Buy new JAM-PROOF 65R at your Supply House

RIGID
WORK-SAVER PIPE TOOLS
THE RIDGE TOOL CO. • ELYRIA, OHIO

▼ BRIEFIT—Identify by IEN-5386 ▼

GAGE . . To sort threaded parts into known classifications for fit

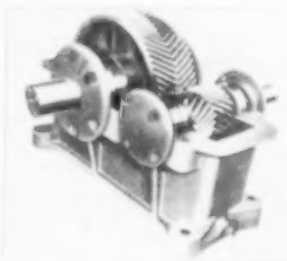
Source: BRYANT CHUCKING GRINDER CO.
255-9 Clinton St., Springfield, Vt.

New thread gage . . . . . Three gage sizes . . . . . Segments . . . . .

▼ BRIEFIT—Identify by IEN-5387 ▼

DRIVE . . Speed reducer, herringbone gears, ½ to 1,000 hp.

Source: DE LAVAL STEAM TURBINE CO.
851-55 Nottingham Way, Trenton 2, N. J.



Single, double . . . . . The gears . . . . . Bulletin H-118.

All Makers of These And All Other Products Are Listed in THOMAS' REGISTER . . . Descriptions . . . Ratings . . . See Page 30

▼ BRIEFIT—Identify by IEN-5388 ▼

YOU MAY SAY—
"No Down Time on Our Machines"

BUT—ARE YOU SURE?

You can't be sure by just walking around the plant and "keeping an eye on them." Necessary little maintenance stops and delays creep in that way. And they can add up to quite a total! No, you can be certain of full machine hours only by installing Servis Recorders. Their charts show all down time, even little 10-minute pseudo-delay shift or night shift. Tells you exactly when each machine started, stopped and how long. Write for our booklet, "A Busy Plant." The Servis Recorder Co., 1370 Ansel Ave., Cleveland 15, O.

The Servis Recorder
The "Time Clock" for Machinery

▼ BRIEFIT—Identify by IEN-5389 ▼

MERCURY "A-310"
INDUSTRIAL TRAILER

OVER 250,000 NOW IN USE

Standard Type "A-310" Trailer

Type "A310" with Box Body

Type "A310" with Dump Body

Mercury Manufacturing Company
4332 S. Halsted St.
Chicago 9, Ill.

MERCURY

TRACTORS • TRAILERS • LIFT TRUCKS

▼ BRIEFIT—Identify by IEN-5390 ▼

SPRACO NOZZLES

Write for NOZZLE CATALOG to
SPRAY ENGINEERING CO.
110 CENTRAL STREET • SOMERVILLE 43, MASS.

▼ BRIEFIT—Identify by IEN-5391 ▼

Why WISCONSIN ENGINES are Air-Cooled

Air-Cooling, as developed and perfected by Wisconsin Motor Corporation engineers, has these important advantages for the power user:

1. Greatest freedom from starting delays and troubles. More Service FROM the engine, less service TO the engine. Fewer Man-Hours between H. P. Hours on the job.

2. More efficient cooling at all engine speeds and all temperatures. Runs just as well in frigid Arctic as in tropical heat. The engine never runs out of Air.

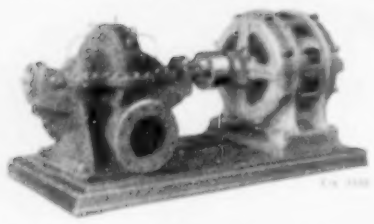
3. Lowest maintenance and longevity cost. Eliminates all radiator, jacketing, connections . . . nothing to get out of order, wear out or require replacement.

4. Lighter engine weight and greater compactness . . . for most convenient portability and greatest installation adaptability, or power to independently go with equipment.

Every Wisconsin Engine from the smallest to the largest (2 to 50 hp., single cylinder, 2 cylinder and 4 cylinder) has all the advantages of dependable AIR-COOLING, plus heavy-duty design and construction throughout.

WISCONSIN MOTOR CORPORATION
World's Largest Builders of Heavy-Duty Air-Cooled Engines
MILWAUKEE 14, WISCONSIN

▼ Reader's request—Ident by IEN-5392 if you write the maker ▼



FOR HEAVY DUTY, LARGE CAPACITY JOBS . . .
GOULDS DOUBLE SUCTION CENTRIFUGALS

TYPE	USES	ADVANTAGES
Horizontal, single-stage double suction with replaceable split casing. Capacities to 12,000 G.P.M. Heads to 300 ft. Also special to capacity, 3,000 G.P.M.	General water supply, water works, circulating and booster service, low pressure boiler feeding.	Rugged, heavy duty construction may be disrupted without disturbing pipe service lines. Made to Goulds Allied all steel, and all bronze construction.

GOULDS HAS THE RIGHT PUMP FOR YOUR JOB

This is just one example of the more than 100 types and sizes of pumps that Goulds builds. Pumps are our only business. Have been for over 100 years.

The RIGHT PUMP for your job costs you more. Phone or write Pump Headquarters or your nearest Goulds representative for their recommendation or we'll send you the data here.

Goulds PUMPS INC.
Seneca Falls New York

▼ Reader's request—Ident by IEN-5393 if you write the maker ▼

LIFT OR LOWER – FLOOR TO FLOOR

Move boxes, cases, cartons, sacks or bundles from basement to first floor, or any floor to floor — continuously with the Standard Inclinebelt. Compact — simple to install — minimum maintenance and attention. Lifts or lowers 10 to 20 lbs. of live load per ft., floor elevations of 8 ft. to 14 ft. 8 inches on 35 inch, two belt widths to handle commodities 15¾ inches to 25¾ inches wide. Electric motor operated. Write for Bulletin No. IEN-60.

Standard Conveyor Company
North St. Paul
Minn.

Standard
CONVEYORS

▼ Reader's request—Ident by IEN-5394 if you write the maker ▼

TWIN DISC CLUTCH COMPANY • RACINE, WISCONSIN • Rockford, Illinois

▼ Reader's request—Ident by IEN-5395 if you write the maker ▼

VALVE . . Globe and angle designs, 150 lb. bronze body, sizes ¼ to 2 in.

Source: MANNING, MAXWELL & MOORE INC.
1948 Kossuth St., Bridgeport 2, Conn.

Internal design of this unit incorporates a vertical section which somewhat streamlines flow and provides by the compact. It also reports the valve for more previous standard design. Pressure rating is to 150 lb. at to-steel seating, to 300 lb. at all-stock cold water, oil, gas. Renewable plug seats and discs are made of standard stock steel hardened to 500 Brinell. The stem is alloy bronze. The valve body seats on it can be packed under pressure. Inspection covering is supplied in the original assembly. The handwheel is malleable iron. Price in 2-in. connection, 2-in. to 8 in. screwed globe design.

▼ Reader's request—Ident by IEN-5396 if you write the maker ▼

INSULATING . . Baking varnish for general use on electrical coils

Source: IRVINGTON VARNISH & INSULATOR CO.
4-8 Argyle Terrace, Irvington 11, N. J.

Sample available upon request

No. 1100 is a non-gassing, moisture-resistant varnish for impregnating windings of electrical units and for baking into a protective and insulating film. The vapor material is made by dissolving in a mixture of 1 part xylene and 1 part toluene, one of the solvents which does not affect cotton or wool fibers.

▼ Reader's request—Ident by IEN-5397 if you write the maker ▼

FASTENING . . Locking type cap nuts, four sizes from 6-32 to ¼ in. 28

Source: ELASTIC STOP NUT CORP.
2328-32 Vauxhall Road, Union, N. J.

Four variations of the company's new Type K3 cap nut are shown in the illustration. These include the Two-Tight section to the left, the two locking anchor lugs in the upper left and center, the locking ring in the upper right and the nut in the upper right. All are fitted with metal caps to assure a smooth flow of water, mouth through the nut without affecting the water feed.

Material in cadmium plated steel for standard durations. The locking insert is nylon as in Bulletin No. 10. Finer is in Finish No. 1 plain. The nut will stand temperatures to 90 degrees.

All Models of These And All Other Products Are Listed in CHEMICAL ENGINEERING Catalog — See Page 30

▼ Reader's request—Ident by IEN-5398 if you write the maker ▼

TRIPLEX..
your economical source of supply for

SCREWS
CAP . . . to 1" x 8"
SET . . . to ¾" x 4"

BOLTS
LAG . . . to ½" x 20"
STEP . . . to ½" x 6"
PLOW . . . to ¾" x 6"
STOVE . . . to ½" x 6"
MACHINE . . to 1" x 60"
CARRIAGE . . to 1" x 60"

NUTS
SEMI-FINISHED and CASTELLATED
Sizes to 1¼"

Write or wire your requirements

TRIPLEX SCREW COMPANY
5311 GRANT AVENUE • CLEVELAND 5, OHIO

▼ Reader's request—Ident by IEN-5399 if you write the maker ▼

This Could Happen to You . .

One of America's big small parts makers of unpainted insulation has just been through an embarrassing predicament . . . delivering short count packages and worse still being told on the two large customers. Here is what happened: [illegible] checking [illegible] ing machines (1), relying upon containers to take parts to required number; (2) no systematic checking-spring of finished cartons. This situation was changed by installing

EXACT WEIGHT scales at filling machines so they could be adjusted, and other units to check by weight the count in finished packages. Don't risk losses in parts and customer in your plant. Write for details of [illegible] prices and equipment now available for your needs.

EXACT WEIGHT SCALES
Industrial Precision
THE EXACT WEIGHT SCALE COMPANY
130 W. Fifth Avenue, Columbus 5, Ohio
2920 Bloor St., W., Toronto 19, Canada

▼ Reader's request—Ident by IEN-5400 if you write the maker ▼

HOW TO GET ONE COAT PROTECTION FOR HARD TO PAINT PLACES

This New Free Book tells what paint to use and how to use it. You'll find up to the minute information on correct types of ready mixed aluminum paints for metal, masonry or wood surfaces, inside or out — and for heated surfaces.

Though Alcoa does not make aluminum paint, we have prepared this book to help you select the best, and apply it for greatest service. It will explain how and why the correct aluminum paints, made with Alcoa pigments offer high resistance to moisture, fumes, heat and wear.

The book includes coverage tables, identification of the proper paint to cover and preserve metals, concrete, masonry and plaster, wallboard and other interior finishes.

Just attach this coupon to your letterhead, and this valuable book will be sent to you.

ALUMINUM COMPANY OF AMERICA
Paint Service Bureau, 1734F Gulf Bldg., Pittsburgh 19, Pa.
Please rush me free copy of "Painting with Aluminum".
Name (Please print)
Address
City
What paint to paint the following

Look for this shield on aluminum paints made by many paint manufacturers using ALCOA PIGMENTS.
The RIGHT aluminum paint for this job is ALUMINUM METAL & MASONRY PAINT.

ALCOA

▼ Circle IEN-5402 for more data ▼

SAVE on OPERATING COSTS and RENT with CARD Sturdi-Lite SAFETY LADDERS

FAST to move around. SAFE to work on, handy shelf or basket at top. Amazingly LIGHT WEIGHT but STRONG tubular ALUMINUM construction, including hand rails. Sturdy, one-piece steps, non-skid rubber treads. Self-leveling casters on two rear legs and front Swiveling Caster. Heavy rust resisting levers tilt legs, front rubber feet off floor, until it "settles down on rubber, then they lower and rest securely on floor.

MANY time-saving uses in factory assembly lines, machine room work, shop, mill and fire rooms, etc.

LITTLE SPACE—when things HIGH is. Elevates, lets you do job. They're easy to get at with CARD SAFETY LADDERS.

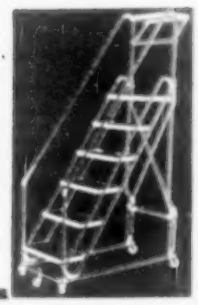
For NARROW AISLES—18" width. 3 Step, Rung, and Step with shelf or basket top.

For WIDE AISLES—24" width. 3 Rung, Step and Step with shelf only at top.

ALSO Step Stools and Bullpens.

Write

D. R. CARD COMPANY
National Distributor
529 MERCHANDISE BLDG.
MINNEAPOLIS 1, MINN.
Mfg. BURD METAL PRODUCTS
Clearwater, Fla.



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No hold-up for down-time!

Every Towmotor is designed for the job . . . and stays on the job because each part is engineered for a practical industrial purpose. Compare Towmotor with any other fork lift truck and you will see why Towmotor's trouble-free features make every Mass Handling job easier, faster, safer. Write for a copy of "Handling Materials Illustrated." Towmotor Corporation, Division 26, 1226 E. 152nd St., Cleveland 10, Ohio. Representatives in all Principal Cities in U. S. and Canada.

every handling job is easier with TOWMOTOR MH!

TOWMOTOR FORK LIFT TRUCKS and TRACTORS

▼ Circle IEN-5404 for more data ▼

COOPER ALLOY Offers a Complete Line of STAINLESS STEEL HOSE FITTINGS

Couplings, nipples, caps and miscellaneous fittings are available from stock in stainless, nickel and monel with inlet pipe size or hose threads. Ideal for joining chemically resistant natural or synthetic hose materials.

Write for Descriptive Folder

THE COOPER ALLOY FOUNDRY CO.
HILLSIDE, NEW JERSEY
THE WORLD'S LARGEST FOUNDRY DEVOTED EXCLUSIVELY TO THE CASTING OF STAINLESS STEEL

NEW LITERATURE

Brief answers to allow you to circle and numbered as listed in the classification index of advertisers. Mail to you and manufacturer sends it direct to you. A service to you and manufacturer.

BALANCING . . . IEN-5401

BEARING . . . IEN-5402

BEARINGS . . . IEN-5403

BENDING . . . IEN-5404

BENDING . . . IEN-5405

BOILERS . . . IEN-5406

BORING . . . IEN-5407

BRONZE . . . IEN-5408

CALCULATORS . . . IEN-5409

CASTERS . . . IEN-5410

CASTINGS . . . IEN-5411

CHEMICALS . . . IEN-5412

CHUTES . . . IEN-5413

CIRCUIT BREAKERS . . . IEN-5414

CONSTRUCTION . . . IEN-5415

To Make of These And All Other Products You Are Listed In THOMAS REGISTER . . . Descriptions . . . Ratings . . . See Page 10

▼ Circle IEN-5405 for more data ▼

PIPE MARKERS anyone can use— everyone can read

QUIK-LABEL Pipe Markers conform to American Standards Association Pipe Identification System. QUIK LABELS come on handy cards . . . stick without moistening . . . names of materials printed in large block letters on contrast ASA background colors. CAN BE READ UP TO 75 FEET. Markers for over 140 materials, *including all materials listed in ASA Standard A13,* available on Ready Stock Cards. Specials made to your order. QUIK LABEL Pipe Markers are Silicone Plastic coated to resist dirt, grease, fumes, moisture . . . indoors or out. Replace slow and costly painting and hand stenciling. Exclusive Starter Strip automatically releases part of label for fast peeling. QUIK LABELS mark your pipes so that anyone who can read will know what's in them. *QUIK-LABELS leave no room for doubt . . . or tragedy.* Write for useful literature and FREE SAMPLES today.

FREE SAMPLES

W. H. BRADY COMPANY | Established 1914
Manufacturers of Self-Sticking Tape Products
CHIPPEWA FALLS 9, WISCONSIN • Distributors in 125 Cities

▼ Circle IEN-5406 for more data ▼

Buy by Mail

ANOTHER UDYLITE SERVICE!

"Buy By Mail" is a direct mail service unique in the plating industry. Each month we issue a folder giving latest prices on Udylite plating supplies . . . up to the minute market trend data . . . convenient listing of Udylite representatives PLUS "The Product of The Month" . . . an item of the Udylite line which is featured at an attractive price.

"Buy By Mail" is sent to you for your convenience. If you are not now receiving your copy please let us put you on our mailing list. Call your nearby Udylite representative or write The Udylite Corporation, Detroit 11, Mich.

THE Udylite CORPORATION
DETROIT 11, MICHIGAN

PIONEER OF A BETTER WAY IN PLATING

▼ Circle IEN-5407 for more data ▼

KIPP Air Grinders

MODEL JA
50,000 R.P.M.
Weight 12 ounces, length 8½ inches, chuck size ¼ inch. Wheel guard is moved for better illustration.

$42 IN U.S.A.

THEY GRIND--NOT JUST RUB!

The RPM's stay up, whole grinding . . . not only when the grinder runs idle.

It is an established fact that surface speeds must run up to approximately a mile a minute if you want to grind . . . not just rub. Every mechanic knows this, but an inexperienced buyer may order tools that maintain proper grinding speeds only when running idle. The speed of Kipp air grinders drops but slightly when put to work. That means better work . . . longer wheel life.

MADISON-KIPP CORP.
224 Waubesa St., Madison, Wis., U.S.A.

Write for KIPP Air Tool Catalog AT 3006

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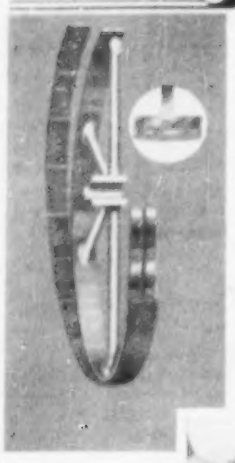

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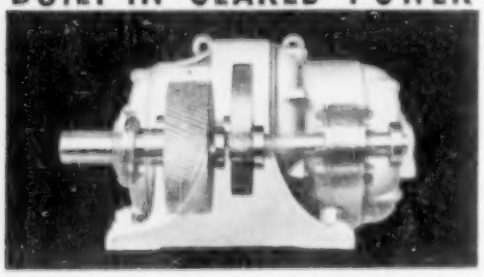

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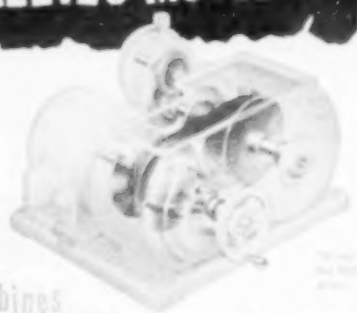

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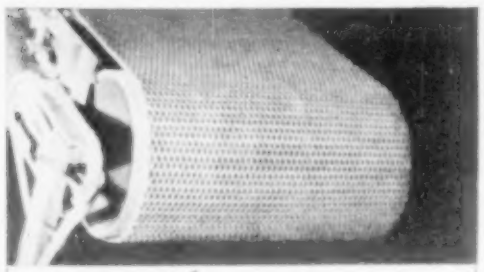
DRILLING ... IEN-5507

DRIVES ... IEN-5508

DRIVES ... IEN-5509

50 Makers of These And 50 Other Products Are Listed In THOMAS REGISTER — Descriptions — Ratings — See Page 50



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Can't faze

HOMESTEAD
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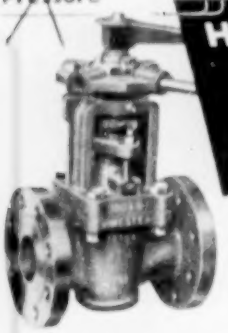
VALVES
They're Stick Proof



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- Positive seal without lubrication.
- Sealing surfaces always protected in both open and closed positions. Line service practically eliminated.
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- All operating parts protected from damaging effects of service conditions and weather.

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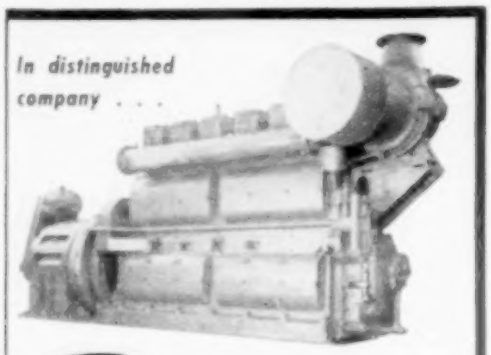

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HEAVY SLUGS of CONDENSATE

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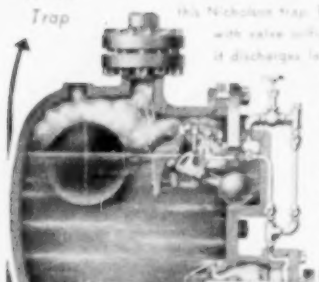

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CATALOG 250

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GRINDING — Bulletin describes grinding machine, including operation of machine and some typical applications of it. 4 pages. Machine Machine Works, 1611 Eddystone Ave., Philadelphia 13. IEN-5003

GRINDING — 12-page catalog describes and illustrates new precision grinding machine. Specifications and prices. Bryant Grinder Corp., Springfield 3, Vt. IEN-5004

GROMMETS — Book of specified grommets, illustrations, drawings and charts on how standard grommets are used. "Grommets." 8 pages. Scovill Manufacturing Co., Inc., 1866 E. 40th St., Cleveland, Ohio. IEN-5005

HANDLING — Electric control for electric operating, hand-operated Hoistrol models, other hoist control lines. Bul. 48. 4 pages. C. M. Hoists Inc., 8302 Wallace Ave., Philadelphia 36, Pa. IEN-5006

HANDLING — Bulletin shows fifteen power-driven hand trucks, large and small platform, skids, magazine. Bulletin 200-D. 24 pages. Thomas Truck & Hoist, 300-42 W. Avenue 33, Los Angeles 31, Calif. IEN-5007

HARD FACING — "Tungsten-Borides" compounds for hard surfacing, dies, cutting and wear resistance. Bulletin 10048. 3 pages. Alloy Rods Co., 47 Lincoln Highway West, York, Pa. IEN-5008

HEADS — Stainless steel bolted heads. Open and closed pressure vessel equipment. "Safety Head Know How." 16 pages. Parts, sheets & fittings. Bul. 194-D. Dravo Corp., Pittsburgh 22, Pa. IEN-5009

HEAT TREATING — "Super-Quench" oil for heat treatment of steel, theory, preparation, test data. Bulletin 55. Feb. 10 pages. Gulf Oil Corp., Gulf Oil Bldg., Pittsburgh 30, Pa. IEN-5010

HEATING — Unit heater with fan drive for steam, hot water, low-temp. vapor. Specifications, illustrations. Bulletin UH-1. 6 pages. L. J. Wing Mfg. Co., 136-66 Nextmead Mfg. Dr., Linden, N. J. IEN-5011

HOISTS — Seven-page leaflet with manual or electric drives, explosion-proof data on a range of models. Bulletin M-660. 16 pages. Shepard Niles Crane & Hoist Corp., 356 W. 3rd, Montour, Wis. IEN-5012

HONING — Data for gauges, dials or drill gages to hone 0.10 to 1 in. bores, operation, method. Three 4-page Sunnen Products Data Sheets. 7910 Manchester Ave., St. Louis 17, Mo. IEN-5013

HOSE — Line indicating service chart on atmospheric wire fittings and 18 couplings, gaskets. Cross-ref. catalog. 20 sheets. Eastman Mfg. Co., P.O. 22, Chartwell St., Wilmington 99, Del. IEN-5014

ICE MAKING — One-man ice vending system. Data on operation of eight complete engineering company's equipment. Ice Plant Vendor, 4 pages. Ice Co., 530 Broadway, Watervliet, N.Y. IEN-5015

INDEXING — Bulletin describes series 10 to 30 positions in two standard capacities, specifications, dimensions. 4 pages. Camco & Tower, 1010 Santa Fe Ave., Los Angeles 21, Calif. IEN-5016

INSULATING — Properties, chart on 17 commercial and refractory materials, insulation data. Catalog sheets No. 301. 4 pages. Armco Ave., Lava Ridge, Charleston Brick & Chemical, Inc., Charleston 3, S.C. IEN-5017

INSULATING — Bulletin describes for thermal heat insulation, specifications, properties, data. Catalog sheets No. 301. 4 pages. Armco Ave., Lava Ridge, Charleston Brick & Chemical, Inc., Charleston 3, S.C. IEN-5018

INSULATING — Bulletin describes for thermal heat insulation, specifications, properties, data. Catalog sheets No. 301. 4 pages. Armco Ave., Lava Ridge, Charleston Brick & Chemical, Inc., Charleston 3, S.C. IEN-5019

INSULATING — Bulletin describes for thermal heat insulation, specifications, properties, data. Catalog sheets No. 301. 4 pages. Armco Ave., Lava Ridge, Charleston Brick & Chemical, Inc., Charleston 3, S.C. IEN-5020

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INSULATING — Bulletin describes for thermal heat insulation, specifications, properties, data. Catalog sheets No. 301. 4 pages. Armco Ave., Lava Ridge, Charleston Brick & Chemical, Inc., Charleston 3, S.C. IEN-5028

INSULATING — Bulletin describes for thermal heat insulation, specifications, properties, data. Catalog sheets No. 301. 4 pages. Armco Ave., Lava Ridge, Charleston Brick & Chemical, Inc., Charleston 3, S.C. IEN-5029

TAPPING — Machine for parts to 6 in. diameter, operating on various materials, accessories. Literature E-57. 12 pages. Crane Packing Co., 1801 Carolyn Ave., Chicago 47, Ill. IEN-5030

An Makers of These And All Other Products Are Listed in THOMAS REGISTER — Descriptions — Ratings — See Page 50

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LUBRICATING — [illegible] Identify by IEN-5436

METERS — [illegible] Identify by IEN-5437

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PROCESSING — [illegible] Identify by IEN-5447

PUMPS — [illegible] Identify by IEN-5448

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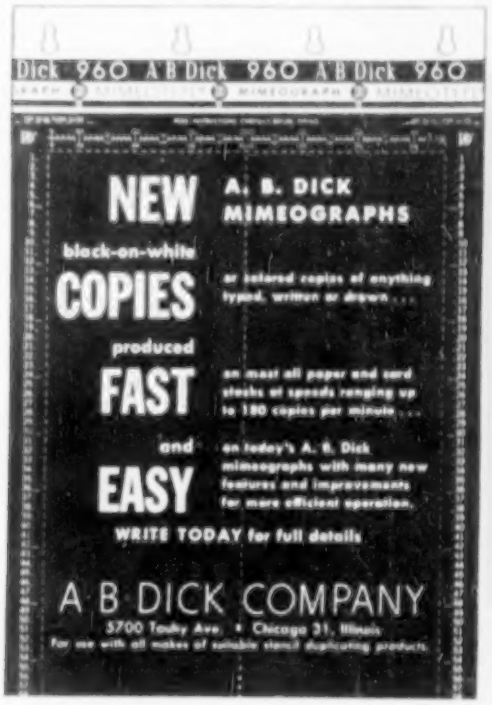
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NEW LITERATURE—Continued

"If it isn't listed here...ask us"

PUMPS . . . Centrifugal, rotary with spring, for use in handling petroleum products, refrigerants, gases, etc. Also R-Mite, 3 pages. A. R. Wilfley & Sons, Inc., San Jose, Calif. IEN-5436

PUNCHING . . . Power Metal Fabricating Machines for punching, cutting, shearing, notching, coining, etc. 8 pages. Wales-Strippit Corp., 80 Exchange St., Tonawanda, N. Y. IEN-5437

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SEPARATING . . . Centrifugal separators for clarifying and purifying liquids. Bulletin 46. 8 pages. Sharples Corp., 2500 Washington Ave., Chester, Pa. IEN-5619

SEPARATING . . . Centrifugal separators for clarifying and purifying liquids. Bulletin 46. 8 pages. Sharples Corp., 2500 Washington Ave., Chester, Pa. IEN-5620

SEPARATING . . . Centrifugal separators for clarifying and purifying liquids. Bulletin 46. 8 pages. Sharples Corp., 2500 Washington Ave., Chester, Pa. IEN-5621

SEPARATING . . . Centrifugal separators for clarifying and purifying liquids. Bulletin 46. 8 pages. Sharples Corp., 2500 Washington Ave., Chester, Pa. IEN-5622

SEPARATING . . . Centrifugal separators for clarifying and purifying liquids. Bulletin 46. 8 pages. Sharples Corp., 2500 Washington Ave., Chester, Pa. IEN-5623

SEPARATING . . . Centrifugal separators for clarifying and purifying liquids. Bulletin 46. 8 pages. Sharples Corp., 2500 Washington Ave., Chester, Pa. IEN-5624

SEPARATING . . . Centrifugal separators for clarifying and purifying liquids. Bulletin 46. 8 pages. Sharples Corp., 2500 Washington Ave., Chester, Pa. IEN-5625

SEPARATING . . . Centrifugal separators for clarifying and purifying liquids. Bulletin 46. 8 pages. Sharples Corp., 2500 Washington Ave., Chester, Pa. IEN-5626

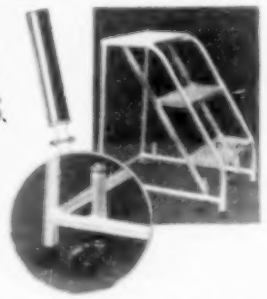
SEPARATING . . . Centrifugal separators for clarifying and purifying liquids. Bulletin 46. 8 pages. Sharples Corp., 2500 Washington Ave., Chester, Pa. IEN-5627

SEPARATING . . . Centrifugal separators for clarifying and purifying liquids. Bulletin 46. 8 pages. Sharples Corp., 2500 Washington Ave., Chester, Pa. IEN-5628

SEPARATING . . . Centrifugal separators for clarifying and purifying liquids. Bulletin 46. 8 pages. Sharples Corp., 2500 Washington Ave., Chester, Pa.

▼ [illegible]—Circle IEN-5444 [illegible] ▼

AUTOMATIC *Rolling-Holding* FEATURE MAKES STEP-LADDERS SAFE



No longer need you fear accidents from rolling step ladders. The Ballymore Safety Step feature locks ladder to floor when in use but permits easy rolling when no one is on it. Rubber tipped legs are "locked" to floor by weight of each step; rubber tires ladder weight only.

Available in one and two-step models without handrails, in three-step models with or without handrails and in four and six-step models with handrails. Wire baskets, which make possible use of both hands, larger loads and faster service are optional on models with handrails.

WRITE TODAY FOR FREE ILLUSTRATED CATALOG

THE BALLYMORE COMPANY

WAYNE 4, PA.

▼ [illegible]—Circle IEN-5445 [illegible] ▼

Which tool do you need to loosen nuts?

Monel nuts on steel bolts and studs can save a lot of trouble when you're taking apart pipe joints or machinery.

How would you like to get your engineers to specify Monel and Permanite* for the parts of the Model you sell?

You can do it by following the practice of putting Monel nuts and studs on your machines.

With Monel nuts on the job you'll always be ready for the customer's remark, "Now I'll be sure to come to you for spares or repairs when I need them." Monel nuts and studs won't rust, corrode, weld or freeze.

Monel resists corrosion by salt water, common acids and most alkalies. Monel is tough and rugged.

Monel is also "precision" metal. Many Monel nuts are machined on the best automatic screw machines.

Monel nuts are available in all standard thread specifications and in a full range of sizes.

So take advantage of the "extras" you get with Monel. Tell Monel users that you use only Monel. Tell your customers that you use Monel nuts and studs. Try all Monel fastenings wherever rusting, corrosion or pitting is a problem. Monel fastenings are available in all types and sizes.

SEND OUT FOR YOUR SAMPLE Your engineering department will want to test Monel fastenings in your products. Write us on your business letterhead, giving the name of your company, the name of your product and the name of the person to whom we should send the sample.

Here are some places you can use Monel Nuts

Furnace parts	Heat exchanger equipment
Steam lines	Tank hot coils
Effluent lines	Paper machinery
Valve flanges	Process plant equipment
Pump stuffing glands	Pipe lines
Engine studs	Pipe lines around ship
Machinery studs	Mountings
Electrical connections	Hangers
Exhaust pipe flanges	Gauges and gears

THE INTERNATIONAL NICKEL COMPANY, INC.
67 Wall Street New York 5, N. Y.

Monel Fastenings are stronger...tougher...safer

NEW LITERATURE — Concluded

"Don't forget your auto new literature"

TESTING [illegible] IEN-5446

TESTING [illegible] IEN-5447

TESTING [illegible] IEN-5448

TIMING [illegible] IEN-5449

TRUCKS [illegible] IEN-5450

TUBES [illegible] IEN-5451

TUBES [illegible] IEN-5452

VALVES [illegible] IEN-5453

VALVES [illegible] IEN-5454

VALVES [illegible] IEN-5455

VENTILATING [illegible] IEN-5456

VENTILATING [illegible] IEN-5457

WATER TREATING [illegible] IEN-5458

WATER TREATING [illegible] IEN-5459

WIRE WORKING [illegible] IEN-5460

WIRE WORKING [illegible] IEN-5461

All Makers of Types And All Other Products Are Listed In THOMAS REGISTER — Descriptions — Ratings — See Page 10

▼ [illegible]—Circle IEN-5447 [illegible] ▼

NEW! BRADY MASKS

Die-Cut to Sizes and Shapes You NEED...

Self-adhesive **BRADY MASKS** will save you time and dollars in spray painting, sanding and sand blasting operations. **Die-cut to the exact shape and size you require,** handling **BRADY MASKS** protect name plates, machined parts, plated and polished surfaces, brackets and other areas from paint, grinding particles and shavings. They withstand rough hand cutting, use of paint-off materials and aggressive metal shields. Made from "Special" Brand Masking Tapes, they are fast to apply and fast to remove when no longer needed. **BRADY MASKS** will bring immediate economies in savings, in your plant. Come, circles and rectangles **stocked in many sizes.** Write today for useful literature and **FREE SAMPLES.**

BRADY-MILWAUKEE CO.
Div. of W. H. Brady Co., Cheyenne Falls, Wis.
210 W. Washington St., Milwaukee, Wis.

FREE SAMPLES

▼ [illegible]—Circle IEN-5448 [illegible] ▼

There's always room for a ROTO-CLONE

Modern Dust Control Equipment Designed to Fit the Space and the Job

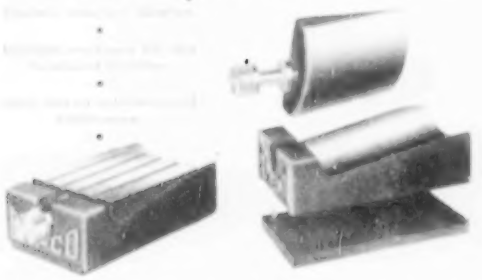
AMERICAN AIR FILTER CO., INC.
[illegible]

AAF

ROTO-CLONE DUST CONTROL

▼ [illegible]—Circle IEN-5449 [illegible] ▼

NEW VIBRATION ABSORBING MACHINE LEVELING *Empco* JACK



EMPCO PRODUCTS

THE ENTERPRISE MACHINE PARTS CORPORATION
2737 JEROME AVENUE • DETROIT 12, MICHIGAN

▼ [illegible]—Circle IEN-5450 [illegible] ▼

Easy A *FINISHING* SANDER *NOT* ORBITAL OR CIRCULAR

Easy's [illegible]

NEW MODEL DF:

- FASTER CUTTING
- POSITIVE DRIVE
- VELVET SMOOTHNESS and a host of other new features

Plus EASY'S REPUTATION FOR TROUBLE-FREE LOW COST MAINTENANCE.

Call your jobber or dealer or write for bulletin.

DSM DETROIT SURFACING MACHINE COMPANY
7433 W. DAVISON • DETROIT 4, MICH.

▼ BRIEFITS—Identify by IEN-5451 ▼

Turn to **INGERSOLL** *when you need—*

Special Steels

FOR Special *USES*

BW

INGERSOLL

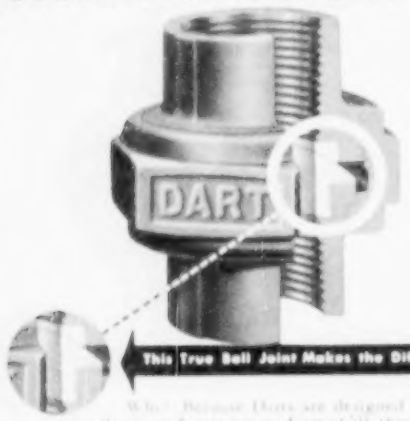
Alloy Steels • Armor Plate • Clutch Plate Steels
Tillage Steels • Soft Center Steel • Shovel Steels
Knife Steels • Saw Steels, including Hack Saw Blade Steels • TEN-CROSS Steel • Stainless Steels
INGACLAD Stainless-Clad Steel

INGERSOLL STEEL DIVISION
Borg-Warner Corporation, New Castle, Indiana
Plants: New Castle, Indiana; Chicago, Illinois; Kalamazoo, Michigan

▼ BRIEFITS—Identify by IEN-5452 ▼

DARTS

COST LESS IN THE LONG RUN



Why? Because Darts are designed to be used over and over again. First of all, they have two bronze seats spherically ground to form a true ball joint. Thus they tighten easily . . . have a drop-tight connection without excessive wrenching. No need to stretch or pet the seat. And cones to protect the permanently lubricated, universal, multiplane joint of balls and seat design off tough stuff. Example: three wheels over you wood . . . use them over and over again.

E. M. DART MFG. CO., Providence 5, R.I.

▼ BRIEFITS—Identify by IEN-5453 ▼

POSITIVE TOOL STEEL IDENTIFICATION

WITH THIS NEW

12-Color Chart!

Now . . . to help you eliminate costly tool steel mixups, Carpenter Matched Tool & Die Steel bars are painted FULL LENGTH with the industry colors! This practical marking system, along with this new Wall Chart helped to reduce the stock the company painted bars, enables you to . . .

- QUICKLY IDENTIFY TOOL STEELS!
- REDUCE YOUR OWN MARKING COSTS!
- AVOID COSTLY STOCK MIX-UPS!
- SIMPLIFY INVENTORY-TAKING!

THE CARPENTER STEEL COMPANY
130 WEST BERN STREET • READING, PA.

Please send me the free Tool Steel Selector and Identification Wall Chart.

NAME TITLE
COMPANY
ADDRESS
CITY ZONE STATE

▼ BRIEFITS—Identify by IEN-5454 ▼

LUBRICATING . . Chain oiler feeds to brush riding conveyor chain

Source: OIL-RITE CORP.
3472 S. 13th St., Milwaukee 7, Wis.

The solenoid connects one terminal to the motor thru the conveyor so it will start only when the conveyor is operating and the chain is in motion. The oil flows in intermittent rate to the brush which spreads it over the chain. The solenoid can be specified for operation on the electrical characteristics that designs with the machine are installed in the unit. The Aerovent can be supplied with a needle valve and a valve opening lever on the reservoir housing.

▼ BRIEFITS—Identify by IEN-5455 ▼

CUTTING . . Hand and power chisels made of alloy steel, range of designs

Source: DELAWARE TOOL STEEL CORP.
1400 E. Market St., Wilmington 99, Del.

Detailed Allen [illegible] material supplied in the company's new line of hand and power tool chisels, paring knives, punches, handy-type tool cutters. Design and treatment of the cutting ends of the hand tools is designed for precise cutting of nonferrous. An index in the line are supported by the magnetic-particle method to reveal any hidden heat-treating cracks.

Bulletin 2-SK [illegible] chisels, gives the various designs in the line, provides size data and list prices.

▼ BRIEFITS—Identify by IEN-5456 ▼

NICKEL ALLOYS . . For pickling service described on basis of applications and performance

International Nickel Co.
67 Wall St., Room 2000, New York 5, N. Y.

"5 Way Savings in Pickling" [illegible] booklet for those [illegible] and engineers to handle metal parts being pickled or processed in corrosive acids. [illegible] examples [illegible] to show [illegible] savings [illegible] and [illegible] equipment.

All Makers of These And All Other Products Are Listed In THOMAS REGISTER — Descriptions — Ratings — See Page 10

▼ BRIEFITS—Identify by IEN-5457 ▼

REDUCE PRODUCTION COSTS . . F.O.S. Tape is handy, versatile, inexpensive. Simplifies production or many uses. . . . Stays put . . . but can be removed quickly without requiring "cleaning." Let SEAMLESS analysts show you how to save time and money with F.O.S. No obligation! . . . Write today for samples and prices.

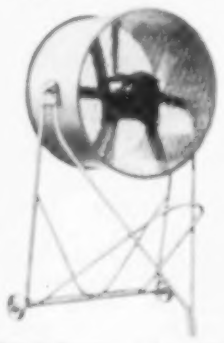
Finest Quality Since 1872

INDUSTRIAL TAPE DIVISION
THE SEAMLESS RUBBER COMPANY
NEW HAVEN 3, CONN., U.S.A.

▼ BRIEFITS—Identify by IEN-5458 ▼

ADD COMFORT . . . SPEED PRODUCTION with Aerovent FAN

MAN COOLING **FANS**



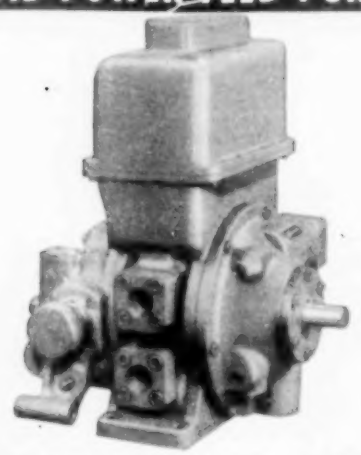
Certified Ratings
PFMA

WRITE TODAY FOR ENGINEERING BULLETIN

AEROVENT FAN CO., Inc.
Ash & Brown Streets, Piqua, Ohio
Competent Sales Engineers in Principal Cities

▼ BRIEFITS—Identify by IEN-5459 ▼

THE NEW OILGEAR "JK" FLUID POWER FEED PUMPS



ARE SO EASY TO APPLY

To *New* or *Old* Machines

Simply connect a new small Oilgear "JK" Feed Pump to an Oilgear cylinder and an Oilgear engineered control and you have a complete pushbutton and switch controlled fluid power system. No hydraulic or electric application engineering is required. Merely follow standard recommendations in mounting units, connect pump to cylinder with two pipes and wire two solenoids on pump to electric controls. Oilgear supplies the feed pump, cylinder, control cams, limit switch panel, control panel and pushbutton station. Oilgear provides patented, tried and proven hydraulic and electric circuits.

You can improve your new and old machines without further cogesting your engineering department or employing hard to get qualified hydraulic engineers. You cut production and assembly costs because NO mechanical control linkages . . . NO auxiliary valves, pipes or fittings are required. You do not have to risk delay, disappointment or malfunctioning. You avoid divided responsibility. You receive the full values inherent only in 100% Oilgear systems.

No other single change in a machine can contribute so much to a simplified design, reduced costs or improved performance as the specification of the "JK" feed system.

Bulletin 44200 describes this small, compact packaged unit that incorporates feed pump, rapid traverse gear pump, control and relief valves as an integral unit; other features described are wide range of feeds . . . mechanically maintained pre-set feed rates, ease of servicing without disconnecting pipes or draining oil reservoirs, etc. Send for this bulletin today. THE OILGEAR COMPANY, 1567 W. Pierce Street, Milwaukee 4, Wisconsin.

Oilgear Fluid Power

PUMPS, MOTORS, TRANSMISSIONS, CYLINDERS AND VALVES

▼ REPRINT—Identified by IEN-5461 ▼

YOU GET UNIFORMITY
When You Specify

EX-CELL-O CORPORATION • DETROIT 32, MICHIGAN

▼ REPRINT—Identified by IEN-5462 ▼

Not cut...Not cast...
but Precision FORGED
by AMGEARS!

Send blueprints or specifications giving shaft speeds, arrangement, center distances and gear ratios. We'll tell you promptly what Amgears can do to save you money and improve your balance.

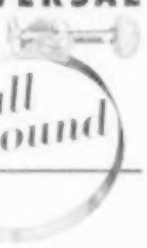
Also: Production and Precision Cut and Ground Gears

AMGEARS, INC.
6633 West 65th St., Chicago 38, Ill.
Pilgrim 7-2100

AMGEARS, INC.
CHICAGO 38, ILLINOIS

▼ REPRINT—Identified by IEN-5463 ▼

MARMAN UNIVERSAL
a better clamp ...all around



vibration proof: self locking screw prevents loosening of clamp and slipping under all conditions.

corrosion resistant: Stainless steel band and saddle (series 15-S). Meets requirements for corrosion resistance.

strong and dependable: Heat treated steel alloy screw, with band ... stainless steel band clamp can be used over and over.

A better all around clamp

FOR INFORMATION WRITE DEPT. IEN

MARMAN PRODUCTS CO. INC.
940 W. FLORENCE AVE., INGLEWOOD, CALIF.

▼ REPRINT—Identified by IEN-5464 ▼

PRESS . . Double acting design rates 750 ton, fitted with "iron hand"

Source: CLEARING MACHINE CORP.
6491 W. 65th St., Chicago 38, Ill.

The inner panel of a typical roadster body is formed in a matrix in this new Hydroform facility going to work at 12 strokes per minute and is transferred by the arching of the linkage underneath the underframe of the body. Forming and the entire transfer action. This linkage pulls down with movement at half speed of lower portion of the press which, at last 12 inches of stroke, lifts the inner panel clear, at approximately 40 inches per second. The shape of the panel, about to arrive at the bottom of the stroke, is shown in the lower picture.

Of the total capacity, 200 tons applies to the forming and 500 on the binder. Draw and lift pad is hydraulically operated at 30 inches per second. Two hydraulic cylinders, 20 inches diameter, 36 inches stroke, are employed. The cylinder is fitted with a 2½ inch piston rod. The cylinder is mounted on the bed of the press with the piston rod connected to the draw pad. Hydraulic pressure is supplied by a 75 gallon per minute pump driven by a 25 horse power motor. Pressure is controlled by a relief valve set at 1,000 pounds per square inch.

Overall dimensions of the press are 50 feet, 10 inches front to back, 14 feet, 6 inches wide and 19 feet, 6 inches high. Shut height is 4 feet, 6 inches. Bed area is 12 feet, 6 inches by 6 feet, 6 inches. Bed opening is 8 feet, 6 inches by 4 feet, 6 inches. Slide adjustment is 24 inches. Weight of the press is 1,000,000 pounds.

▼ REPRINT—Identified by IEN-5465 ▼

TRUCK . . Battery powered tractor, 3,500 lb. maximum drawbar pull rating

Source: MERCURY MFG. CO.
4132 S. Halsted St., Chicago 9, Ill.

Model A-300-L is an electric battery powered tractor for industrial and commercial use. Maximum speed is 3 mph with a rated load. The traction motor is rated 3 hp and is connected to the drive axle on the truck through a sprocket, chain and differential housing. Steering is by a 21-inch diameter steering wheel.

Overall dimensions are 81 in. at its 36 inches extended opening radius is 45 inches. Wheel base between 20 inches. Tires are 20 by 4.50-16 in solid rubber. Fuel tank is grounded to underside on the wheels. Truck weight with no load is 4,000 pounds. It weighs 8,200 lb. without the battery. Front and rear bumpers on the welded steel frame are made of ¾ in. steel.

All Makers of Items And All Other Products Are Listed In THOMAS' REGISTER Descriptions Ratings See Page 10

▼ REPRINT—Identified by IEN-5466 ▼

BANISH
"Booby Trap Showers"
with the DOUBLE Safety of
POWERS
THERMOSTATIC SHOWER MIXERS

One shower accident may cost many times more than Powers shower covers. They are really safe and can avoid Temperature of Powers regulated showers remains constant whatever set regardless of pressure or temperature changes in water supply lines. Failure of cold water supply instantly and completely shuts off the delivery. Bathers can really relax and enjoy the best showers they ever had.

MAY WE SEND CIRCULAR H487

WRITE
THE POWERS REGULATOR CO., 2720 Greenview Ave.
CHICAGO 14, ILLINOIS • Offices in over 50 cities

▼ REPRINT—Identified by IEN-5467 ▼

"Buffalo" "E" BLOWERS

SAVE YOU MONEY ON THESE OPERATIONS

- Blowing oil or gas furnaces
- Gas line boosting
- Cleaning operations —where moderate volumes of air against relatively low pressures are required

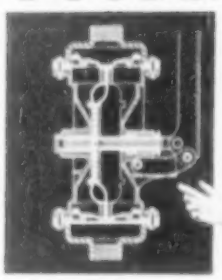
For you are able to tell a number of these operations, compare them, and consultation arrange to set out your installation. Because of the various flexibilities of operation, WRITE FOR BULLETIN which lists all the uses to which these units are adaptable.

BUFFALO FORGE COMPANY
490 Broadway Buffalo 4, N. Y.

"Buffalo" "E" BLOWERS

▼ REPRINT—Identified by IEN-5468 ▼

TOKHEIM
DOUBLE-ACTION



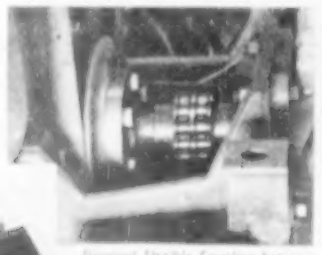
BIGGEST DEVELOPMENT IN HAND PUMPS IN YEARS!

TOKHEIM OIL TANK AND PUMP COMPANY
1454 Wabash Avenue, Fort Wayne 2, Indiana
Factory Branch: 1309 Howard Street, San Francisco 3, Calif.

▼ REPRINT—Identified by IEN-5469 ▼

LONGER SERVICE ON TOUGH JOBS

TRADE MARK



Diamond Flexible Couplings between crankshaft of 20 HP engine at 1800 RPM and Viking hydraulic pump moving 30% by low cost no-downtime performance

Diamond Flexible Couplings

On the basis through test of Performance Diamond Flexible Couplings have demonstrated their ability to deliver longer and more reliable service under the toughest kind of operating conditions.

Being all metal—two sprockets and a double strand of high strength Diamond Roller Chain—they are not affected by atmospheric conditions or temperature changes. Made in sizes from ¼ H.P. to 1000 H.P. with zero speeding ratings which provide for more complete lubrication and still longer life. DIAMOND CHAIN COMPANY, Inc. Dept. 48A 402 Kentucky Avenue, Indianapolis 7, Indiana

Offices and Distributors in all principal cities.
Refer to the classified section of your local telephone directory under the heading CHAINS or CHAINS-ROLLER

New Bulletin No. 19 gives complete data on Couplings and new Casings. Your copy sent on request.

▼ BRIEFITS—Identify by IEN - 5470 if you write the maker ▼

COST-CUTTING CARRIER

Rex TableTop Conveyor Chain is known throughout industry for cutting handling costs three ways. First, its original cost is low. Second, the wide bearing area of specially designed sprockets assures longer, economical life. Third, its smooth, steady operation reduces spillage, breakage and jamming to the absolute minimum.

Rex TableTop is ideal for conveying bottles, cans, packages and small parts. Our booklet containing all the details has recently been revised. Send for your copy today.

REX DRIVE AND CONVEYOR CHAINS

Chain Belt Company
1701 W. Bruce St.
Milwaukee 4, Wis.

Please send me a copy of Bulletin 56-10.

Name
Company Title
Address
City State

▼ BRIEFITS—Identify by IEN - 5471 if you write the maker ▼

This bulletin is full of ideas how to convey dry pulverized materials

BULLETIN F-K 25

This 24-page booklet illustrates and describes the Fuller-Kinyon Conveying System as applied to industry for unloading and conveying dry pulverized materials. It shows, by drawings and photographs, its application to material handling in cement, limestone, phosphate plants, fly ash in power plants, ready-mix concrete plants, as well as applications in cement manufacturing plants.

Write for Bulletin F-K 25 and it will be sent to you promptly.

FULLER COMPANY, CATASAUQUA, PA.
Chicago 3 - 120 So. LaSalle St.
San Francisco 4 - 420 Chancery Bldg.

▼ BRIEFITS—Identify by IEN - 5472 if you write the maker ▼

- HIGH VELOCITY WaterFOG
- STRAIGHT STREAM
- LOW VELOCITY WaterFOG from EXTENSION APPLICATORS

Extinguishes fires in flammable liquids and ordinary combustibles faster with less water. Protects firemen from fire, smoke and fumes. It also permits firemen to reach the very core of the fire and to attack it with less physical punishment.

Designed for use in industrial plants, chemical plants, mercantile and public buildings, and refineries, municipal fire departments, etc.

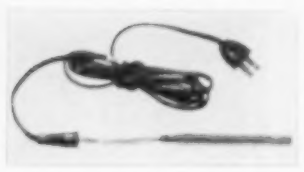
Write for Bulletin G-5218

ROCKWOOD SPRINKLER CO.
40 HARLOW STREET WORCESTER 3, MASS.

▼ BRIEFITS—Identify by IEN - 5473 if you write the maker ▼

HEATING . . Electric element, glass enclosed for immersion use

Source: THERMOLETTOR PRODUCTS
7 St. Andrews Place, Brooklyn 16, N. Y.



Three sizes in the company's line of electric immersion heaters are now available from stock in Vycor glass or in quartz. They measure 9, 16 and 17 in. in overall length, 3, 8 and 11 in. in immersion length and are ¾ in. in diameter. The smallest rates 600 watts on 110 volts. The others rate 1,200 and 2,500 watts on 220 volts. List prices are $15 to $28.50. The unit can be plunged red hot into cold water without damage to either material.

The wire is sealed between the layers of glass in the assembly and all is controlled from the interior. As a result the upper portion of the element remains relatively cool and can be clamped to hold the heater in position. The glass is resistant to most acids. The company is prepared to make heaters to specifications in addition to supplying stock units.

▼ BRIEFITS—Identify by IEN - 5474 if you write the maker ▼

CONVEYING . . Pneumatic pulsator promotes dry flow from bin or hopper

Source: GEROTOR MAY CORP.
P. O. Box 86-A, Baltimore 3, Md.

Fluidlin is a new assembly of steel-mounted rubber panels and a pressure-control known as Pulsatrol to alternately inflate and deflate. The panels sense in the inside walls of a bin or hopper so the pulsating action will promote gravity flow of dry materials by preventing fun-nelling or arching. The action also will break up materials tending to cake after standing for a time.

Pressure to 30 lb. to supply sufficient from an air supply line. Frequency, force and amplitude are adjustable at the control. The rubber in the panels is Goodrich Armorlite.

▼ BRIEFITS—Identify by IEN - 5475 if you write the maker ▼

PACKAGING . . Details on program to package products so they will ship safely

"Safe Transit Kit" of information will be sent on request to acquaint you with the National Safe Transit Program sponsored by the Institute. The kit includes a statement of policy, a description of precautions and procedures, a quiz form to apply for certification, and a copy of the monthly progress report on the program to reduce shipping damage to packaged merchandise to a minimum.

Container Research Institute
1616 K Street, Room 412, N. W., Washington 6, D. C.

All Matters of These And All Other Products Are Listed In THOMAS' REGISTER Descriptions Ratings See Page 56

▼ BRIEFITS—Identify by IEN - 5476 if you write the maker ▼

Manufacturing production lines in Faultless Casters are efficiently equipped with fine equipment and gives it a more personal attention to casting and assembling.

FAULTLESS CASTER CORP.
Dept. IE-2, Evansville 7, Indiana
Branches in Principal Cities—Canada Factory: Stratford, Ont.

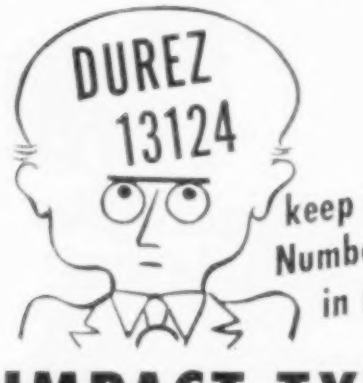
▼ BRIEFITS—Identify by IEN - 5477 if you write the maker ▼

YOU CAN BE SURE... IF IT'S Westinghouse

Westinghouse Oil-Tite Control Stations and Units are Control-Engineered for improved pushbutton control performance. Oil, coolant, cutting compound, water are sealed out. Eliminates possibility of breakdowns due to faulty pushbutton performance. Can be applied to all types of heavy-duty pilot control circuits and controllers. Get complete information from your nearby Westinghouse office, or write Westinghouse Electric Corporation, P. O. Box 868, Pittsburgh 30, Pennsylvania. E-20171

Westinghouse
OIL-TITE CONTROL STATIONS

▼ BRIEFITS—Identify by IEN - 5478 if you write the maker ▼



IMPACT-TYPE PHENOLIC

developed for use in

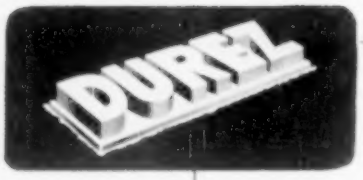
AUTOMATIC EQUIPMENT

• With Durez 13124 phenolic the economies inherent in automatic equipment can be extended to impact-strength moldings. This flock-filled material has an impact strength of .48 F. P. per inch as compared with .26 for general-purpose phenolics. It is supplied in a nodular form developed by Durez for preforming in automatic machines and for use in fully automatic molding equipment.

The nodules are approximately the size of a grain of rice. They feed freely through hoppers in preforming devices equipped with volumetric measuring. The material has good color, smooth surface and an extremely high gloss finish for an impact type.

Keep it in mind for profitable business and better products.

SEND FOR DATA—



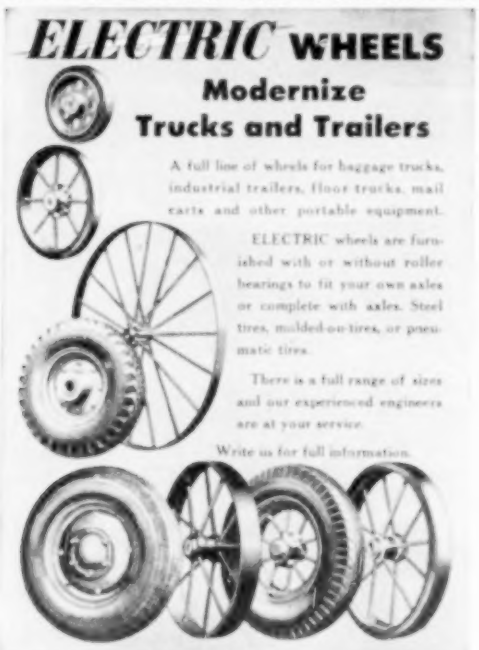
Phenolic Plastics that fit the job

PHENOLIC RESINS
- MOLDING COMPOUNDS
- INDUSTRIAL RESINS
- PROTECTIVE COATING RESINS

▼ BRIEFITS—Identify by IEN-5480 if you write the maker ▼

For HIGHEST ELECTRICAL & MECHANICAL Efficiency!
New
JONES 2400 SERIES
PLUGS & SOCKETS
Improved Socket Contacts. Four individual flexing surfaces. Positive contact over practically their entire length.
Both Plug and Socket Contacts mounted in recessed pockets greatly increasing leakage distance. INCREASING VOLTAGE RATING.
Plug and Socket Contacts cadmium plated. Add to appearance of your equipment.
Interchangeable with Jones 400 Series.
Ask for Catalog 17. Complete line Jones Plugs, Sockets, Terminal Strips.
Send for complete data on this new item improvement
Jones
HOWARD B. JONES DIVISION
CINCH MANUFACTURING CORPORATION
CHICAGO 24, ILLINOIS
SUBSIDIARY OF UNITED-CARR FASTENER CORP.

▼ BRIEFITS—Identify by IEN-5481 if you write the maker ▼


ELECTRIC WHEELS
Modernize Trucks and Trailers
A full line of wheels for baggage trucks, industrial trailers, floor trucks, mail carts and other portable equipment.
ELECTRIC wheels are furnished with or without roller bearings to fit your own axles or complete with axles. Steel tires, molded-on tires, or pneumatic tires.
There is a full range of sizes and our experienced engineers are at your service.
Write us for full information.
ELECTRIC WHEEL CO., 2932 Spruce, Quincy, Ill.

▼ BRIEFITS—Identify by IEN-5483 if you write the maker ▼

MOTOR CONTROL . . Magnetic starter and circuit breaker, 1 to 100 hp, ac.

Source: SQUARE D CO.
4041-43 N. Richards St., Milwaukee 12, Wis.

Bulletin 9038, 12 pages, provides engineering data on the equipment, its construction, operating principles, wiring diagrams, dimensions, application data, etc.

▼ BRIEFITS—Identify by IEN-5484 if you write the maker ▼

STRAPPING . . Reinforced paper tape straps products for handling, shipping

Source: MID-STATES GUMMED PAPER CO.
2513-17 S. Damen Ave., Chicago 8, Ill.

Tape-Strap is the name

Tensile strength

▼ BRIEFITS—Identify by IEN-5485 if you write the maker ▼

POLISHING . . Abrasive hand tool for commutators, brushes, slip rings

Source: CO-OPERATIVE UTILITIES CO.
4635-41 Mulberry St., Philadelphia 24, Pa.

Thermoplastic

▼ BRIEFITS—Identify by IEN-5487 if you write the maker ▼

▼ BRIEFITS—Identify by IEN-5488 if you write the maker ▼

How to get rid of
ACCUMULATED AIR
in pipe lines carrying hot or cold water, industrial liquors, sewage and other liquids
Simplex Air Release Valve
The Simplex Air Valve is easily installed . . . positive in action . . . simple in capacity. Standard valves for pressures up to 250 p.s.i. special valves for pressures up to 800 p.s.i. Thousands have been in successful use for over 30 years.
IT'S SIMPLEX IT'S ACCURATE
SIMPLEX
VALVE AND METER COMPANY

▼ BRIEFITS—Identify by IEN-5482 if you write the maker ▼

▼ BRIEFITS—Identify by IEN-5486 if you write the maker ▼

TIME TELLS! Trabon has had 20 years of experience in engineering and installing lubrication equipment.

ONE INDICATOR at the pump — assuring the proper measured amount of lubricant to each point. SEALED — operates efficiently when buried under dust, dirt, mud, water or grime.

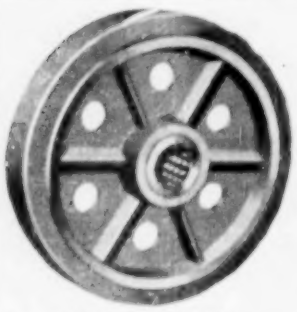
Trabon has an oil or grease system for any type or size machine. Call or write today.

Trabon Engineering Corp., 1914 East 40th St., Cleveland 3, Ohio

Trabon
OIL AND GREASE SYSTEMS

▼ BRIEFITS—Identify by IEN-5489 if you write the maker ▼

▼ BRIEFITS—Identify by IEN-5490 (if you write the maker) ▼



LANCO
MOLDED
ON
RUBBER
TIRED
WHEELS

for REPLACEMENT
for MODERNIZATION
for NEW EQUIPMENT

LONG WEARING RUBBER TIRES MOLDED TO HIGH GRADE IRON WHEELS. SEMI-STEEL ACCURATELY MACHINED AND FITTED WITH HYATT BEARINGS. COMPLETE SETS OF WHEELS, AXLES, CASTERS FURNISHED TO YOUR SPECIFICATIONS.

LANSING COMPANY

TRUCKS • TRAILERS • BARROWS • CASTERS • CARTS • ETC.

"Keep Your Products on Wheels"

Main Office and Factory
LANSING, MICHIGAN
BRANCHES AND REPRESENTATIVES IN PRINCIPAL CITIES

▼ BRIEFITS—Identify by IEN-5491 (if you write the maker) ▼

LESS CLEANING TIME

MORE PRODUCTION TIME

WITH A
Doyle VAC-IT

Subtract from cleaning expenses and add to production profits the time you can save by taking advantage of the powerful cleaning capacity of the Doyle Vac-It. Production machinery is thoroughly cleaned and freed of all clogging dust, dirt and grime in a fraction of the time ordinary cleaning methods take. Metal chips, shavings, grease and liquids are quickly removed from working surfaces leaving them clean and dry. So efficiently does the Doyle Vac-It perform that it is not necessary to stop production or shut down machinery during cleaning.

Write today for informative Doyle Bulletins. See how you can cut cleaning time and costs throughout your entire plant.

Doyle VACUUM CLEANER CO.

2235 Stevens St., S. W. Grand Rapids 7, Michigan

▼ BRIEFITS—Identify by IEN-5492 (if you write the maker) ▼

▼ BRIEFITS—Identify by IEN-5493 (if you write the maker) ▼

FILTERING . . Pressure leaf unit for liquids, has a cake removing spray

Source: NIAGARA FILTER CORP.
3078-82 Main St., Buffalo 14, N. Y.

New design in the company's line of pressure-leaf liquid filters includes a pipe header carrying a set of pressure spray nozzles in the equipment cover. The nozzles are directed on the faces of each of the filter leaves as a cleaning liquid can be directed through the bottom to remove filter cake at the end of a run. Liquid and removed cake are washed out through the bottom outlet in the filter housing without having to open the housing for the cleaning operation.

Auto-Sluice (with valves the new device which is shown in place in the illustration) is available on new equipment and for field application on existing filters in the line. Sizes of filter range from 18 to 96 in. dia., with 5 to 21 filter leaves for 1/6 to 250 gpm. based on average products with flow rates of 20 gph. per sq. ft. of filter area. The standard unit occupies 24 by 42 in. of floor space. The capacity of the filter can

▼ BRIEFITS—Identify by IEN-5494 (if you write the maker) ▼

HANDLES . . Steel arms and hub, plastic ends, for jigs, fixtures, tools

Source: REID TOOL SUPPLY CO.
707-11 Baker St., Muskegon Heights, Mich.

Three designs of steel handles, guaranteed for clamping pressure, are available at the company's store for use in jigs, fixtures, tools, and dies. Each design is in three hub sizes, from 3/8 in. to 1 in. for 1/2 in. to 1 1/2 in. dia. stock, respectively. The handle is supplied in a set screw or tapped at the request of the customer. Knurled hub is standard, and smooth, 3/4 through hole is optional. Plated finish can be specified.

▼ BRIEFITS—Identify by IEN-5495 (if you write the maker) ▼

AIR CONDITIONING . . Engineering data on absorbent-liquid equipment in new bulletin

"Controlled Humidity" [illegible] Engineering data [illegible] Liquid Desiccant Air Conditioning [illegible] Bulletin 1-A [illegible] Dehydrator Corp., [illegible] N. Y.

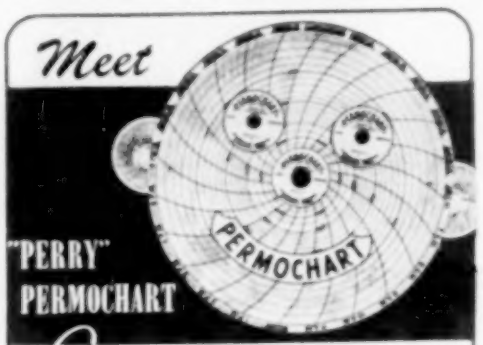
All Statistics of Firms And All Other Products Are Listed In THOMAS REGISTER — Buyingguide — Ratings — See Page 50

▼ BRIEFITS—Identify by IEN-5496 (if you write the maker) ▼

GET LONGER BELT LIFE with . . .
Belt Saver Pulleys
identified by the unique cone and ring design — exclusive with Sprout-Waldron
Its self-cleaning action is ideal for the handling of sand, gravel, limestone, fertilizer, salt, or any other hard, abrasive materials.
Only with Sprout-Waldron BELT-SAVER Pulleys can you expect belt life increases from 50 to 400%. Get full details on the BELT-SAVER as well as on the complete line of S-W "Blue Face" Cast Iron Pulleys today!
• WRITE FOR LITERATURE •

SPROUT-WALDRON & COMPANY
Manufacturing Engineers
S. WALDRON STREET MUNCY, PA.

▼ BRIEFITS—Identify by IEN-5497 (if you write the maker) ▼



Perry says: "Save money with RE-USABLE, LONG-LIFE PLASTIC CHARTS"

You can use WASHABLE, laminated plastic "PERMOCHARTS"* on all your circular recording and controlling instruments. Convenient to use, they'll save you time and expense.

- Guaranteed serviceable life—TWO YEARS.
- Cost per day only $ .00205 to $ .00342.
- Available for any instrument using circular charts.
- Made of 100% "Vinylite" plastic laminated construction.

Send for sample of PERMOCHART construction.

*Reg.

ALLEGHENY PLASTICS, INC.

390 CHESTNUT ROAD • SEWICKLEY, PA.

▼ BRIEFITS—Identify by IEN-5498 (if you write the maker) ▼

TOUREK
BALL JOINTS • PIPE PLUGS
AND
QUALITY SCREW MACHINE PRODUCTS

TOUREK
THE BEST IN QUALITY SCREW MACHINE PRODUCTS

ESTABLISHED IN 1900

▼ BRIEFITS—Identify by IEN-5499 (if you write the maker) ▼

POWERFUL VIBRATION SPEEDS FLOW OF BULK MATERIALS FROM BINS, HOPPERS, AND CHUTES

Rapid, hammer-like blows from CLEVELAND Type "F" vibrators assure a steady flow of material from bins, hoppers, and chutes of all types. These powerful vibrators are recommended for moving bulk sand, coal, lime, ore, cinders, slag, steel chips, cement, coke ash, etc.

Low cost, dependable Type "F" air vibrators are available from stock in six standard sizes for attachment to bins and hoppers having capacities from one to several hundred tons.

CLEVELAND Type "F" vibrators operate at maximum efficiency regardless of mounting position. They are designed for continuous or intermittent operation and engineered for long service life.

WRITE FOR COMPLETE CATALOG AND PRICE LIST.

CLEVELAND VIBRATOR CO.
2737 Clinton Avenue
CLEVELAND 13, OHIO

▼ Write for information on item IEN-5500 ▼

15 FUNCTIONS OF FELT

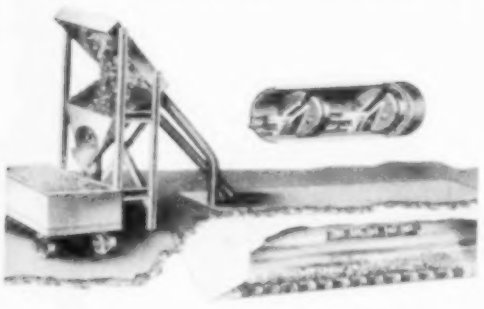
- Sealing
- Wicking
- Wiping
- Polishing
- Vibration Isolation
- Filtration
- Sound Absorption
- Thermal Insulation
- Shock Absorbing
- Cushioning
- Moistening
- Padding
- Packaging
- Surfacing
- Frictional

These are the minimum important mechanical functions fulfilled by FELT. American Felt can be specified as accurately as any other material to meet actual conditions of service. Write us what functions interest you and complete technical information will be supplied. Write for *Story of Felt*

American Felt Company

GENERAL OFFICES: 58 GLENVILLE ROAD, GLENVILLE, CONN.

▼ Write for information on item IEN-5501 ▼



Houdaille® CONVEYOR WILL WORK FOR YOU

Originally designed to handle sludge and waste matter in the metal working industry, the Houdaille Conveyor is being used to handle a wide range of applications in the materials handling field.

This universally loading and continuous unit handles transport is adaptable to transporting any solid or fibrous material which will settle to the bottom of a tank or hopper.

Here are a few of the suggested uses for the Houdaille Conveyor:

METAL WORKING INDUSTRY
Cast Iron Shot and Grit
Aluminum Sludge
Sand Handling from Grinding, Shell Core Making, Steel Pickling, Metal Cutting, Copper Cutting, Aluminum Cutting, Wire Drawing

PLASTIC POWDERS
BREWERY PRODUCTS
FOOD PROCESSING
PACKING PLANTS
Cement
Clays, Dry Products
SOAP MANUFACTURING
Powders, Chips, etc.
MANY OTHERS

MATERIAL FROM DUST COLLECTORS

If you have a material conveying problem, write to this Modern American Industry in one of

HONAN-CRANE CORPORATION
HOUDAILLE-HERSHEY CORP.

The Houdaille® CONVEYOR

▼ Write for information on item IEN-5503 ▼

TIMING . . Electric time printer for worker attendance and job cards

Source: CINCINNATI TIME RECORDER CO.
1740-44 Central Ave., Cincinnati 14, Ohio

Series 1000 ... Variable combinations ...

▼ Write for information on item IEN-5504 ▼

WOOD WORKING . . Portable saw drives 6 in. circular blade, 4,200 rpm.

Source: CUMMINS PORTABLE TOOLS DIV.
4758-42 Ravenswood Ave., Chicago 40, Ill.

Model 100 ...

▼ Write for information on item IEN-5505 ▼

LIGHTING . . Floodlight and battery with circuit closing emergency relay

Source: CARPENTER MFG. CO.
217-21 Master Light Bldg., Boston 45, Mass.

All in Head ...

▼ Write for information on item IEN-5506 ▼

PROTECT WORKMEN FROM OPEN CONDUCTOR BARS

CON-L-DUIT
APPROVED SAFETY ENCLOSURE

SAFETY IS CHEAP! Protection from open conductor bars or cranes and monorails at least available at low cost with CON-L-DUIT, especially unsurpassed in corrosion resistance. It complies with Safety Codes of all States. Two sizes to fit all new and existing 6-pole 8 conductor bar systems. In practical on curves, straight runs, switches, overheads and drop sections. Easy to install, safe, fool-proof, and economical.

CON-L-DUIT is sold and serviced by electrical contractors and crane equipment dealers everywhere. Write for illustrated literature.

calabar CALABAR CORP.
8414 OTIS STREET • SOUTH GATE, CALIFORNIA

▼ Write for information on item IEN-5507 ▼

BIG NEWS about LITTLE SOCKET SCREWS!

BRISTOL'S MULTIPLE-SPLINE SMALL WIRE-SIZE SOCKET SET AND CAP SCREWS

Newest button-contact screws in internal wrenching plus exclusive strength of multiple-spline socket design ... in sizes to meet all Society standards ... available from stock in a full range of finishes. Ideal for use in Midget Motors, Control Systems, etc. Write for samples, data sheets and engineering assistance on your application.

BRISTOL'S SOCKET SCREWS

FREE SAMPLES! Address THE BRISTOL COMPANY, Mill Supply Division, 107 Bristol Road, Waterbury 20, Conn.

▼ Write for information on item IEN-5508 ▼

Ask the Man with Holes in His Head!

. . . to cut your boring costs

BETTER BORING TOOLS . . . MORE BORING EXPERIENCE

MADISON MANUFACTURING COMPANY
Dept. EN Muskegon, Michigan

▼ Write for information on item IEN-5509 ▼

Production Picks Up when Synthane is the Specified Material

TECHNICAL PLASTICS
SHEETS • RODS • TUBES
FABRICATED PARTS

SYNTHANE

MOLDED LAMINATED
MOLDED MACERATED

SYNTHANE CORPORATION
South River Road, Oaks, Pa.
Please send me a copy of the complete Synthane catalog.
Name
Firm
Address
City State

▼ BRIEFITT—Identify by IEN-5510 if you write the maker ▼

COBURN

SLIDING DOOR HARDWARE

Full line of hardware for straight sliding, sliding-folding, swinging-the-corner, and roundhouse doors.

Enclosed track • brackets • hangers • handles guide rolls • guides • stops • binders • chafe strips • bolts • hinges.

Folding partition and accordion door hardware. FREE CATALOG ... For complete information send today for Catalog #200. Engineering help available without obligation.

CF&I COBURN PRODUCTS DEPARTMENT
WICKWIRE SPENCER STEEL DIVISION
THE COLORADO FUEL AND IRON CORP.
Executive Office • 500 Fifth Avenue, New York 18, N.Y.
Sales Engineering • 66 Sterling Street, Clinton, Mass.

▼ BRIEFITT—Identify by IEN-5513 if you write the maker ▼

DRYING . . Refrigerating unit
to remove excess moisture from a room

Source: KELVINATOR DIVISION
14248-52 Plymouth Road, Detroit 32, Mich.

List price is given $100 for this new unit which is 9 in. high, 30½ in. wide, 16 in. deep. It provides dehumidifying and refrigerating action that removes excess moisture. Puts the air in a room. Capacity is to 2 gal. in 24 hours in areas subject to average conditions of humidity in the summer months. Overall dimensions are given. It is 32 in. at its widest point.

Refrigeration is supplied by the sealed, hermetically-protected compressor motor in connection with a cooling coil. The air to be dried is drawn in and delivered over this coil and over a condensing coil by a motor-driven fan. The moisture separates from the air in passage over the cold coil. It flows to a drip pan and then out through an opening to a convenient container or some equipment to which it is piped. Accessories or supplies are standard equipment.

▼ BRIEFITT—Identify by IEN-5516 if you write the maker ▼

IN A HURRY?

Call

U.S. Steel Supply Company
for Top Quality Welding Supplies

■ All our warehouses have large stocks of welding supplies for metal, including Stainless Steel Electrodes, Mild Steel Electrodes, and Hard Surfacing Electrodes.

Whatever you need — Welding Rods, Welding Machines, Heaven Protected "U" Clamps, Protective Metal for maintaining weld quality, or other top quality welding supplies — please write to, wire or phone your nearest office. You'll get what you want in the shortest possible time. That's Service Plus!

WHEN YOU DEAL WITH US, YOU GET Service Plus!

UNITED STATES STEEL SUPPLY COMPANY

UNITED STATES STEEL

▼ BRIEFITT—Identify by IEN-5511 if you write the maker ▼

Atkomatic

VALVES

Available in a wide selection of types for pressures up to 3000 pounds, ATKOMATIC Valves are extra rugged in construction, to withstand years of pounding to which they are subjected in thousands of public toilet installations all over the nation. They have proved their ability to stand up under long and severe punishment. Simple and compact, they provide trouble-free operation. Whether in your plant or on your product, either is easy to install. Get the facts about ATKOMATIC!

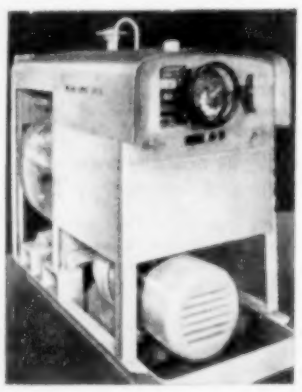
ATKOMATIC VALVE COMPANY, INC.

Send for Literature

▼ BRIEFITT—Identify by IEN-5514 if you write the maker ▼

WELDING . . DC arc machine
with engine drive, has 200 amp. rating

Source: AIR REDUCTION SALES CO.
1656 Lincoln Bldg., New York 17, N. Y.



Hornet Special is a new assembly of the company's Type 20A DC welding generator and a 31-hp., air-cooled Wisconsin gasoline engine. The self-excited generator rates 40 amp. at 20 volts, 200 amp. at 40 volts. It is a ball-bearing unit with the bearings sealed. Control centers at a hand wheel mounted on the panel at one end of the housing. The wheel provides five welding rates.

The engine is coupled to the generator and is equipped for hand starting. A manual anti-drift control is provided to conserve gasoline. Overall dimensions are about 30 in. in length, 28 in. in width, 41 in. in height. Weight is 825 pounds. Cover parts are supplied so the housing can be closed. A two-wheel trailer-type mounting gear with pneumatic-tired wheels is available.

All Makers of These And All Other Products Are Listed in THOMAS' REGISTER — Descriptions — Ratings — See Page 50

▼ BRIEFITT—Identify by IEN-5517 if you write the maker ▼

"COMMERCIAL"

Purchasing agents and designers can avoid costly tools and dies by getting a Commercial "Shape Book".

This Booklet shows a number of circular shapes that can be economically used in designs in various articles, and will show a reduction in costs, make easier assembly but increase the mechanical advantages.

Write for the Shape Book — no tool or die charges for these standard shapes.

THE COMMERCIAL SHEARING & STAMPING CO.
P. O. BOX 719 YOUNGSTOWN 1, OHIO

▼ BRIEFITT—Identify by IEN-5512 if you write the maker ▼

CUTTING PRODUCTION COSTS with Electronic Controls

FORTY FIVE CASE STUDIES

PHOTOSWITCH INCORPORATED CAMBRIDGE, MASSACHUSETTS

These FACTS can SAVE you MONEY

45 CASE STUDIES

... each describing an industrial control problem which has been solved through the use of electronics. Not a catalog . . . it shows HOW photoelectric and electronic controls could speed your weight inventory operation, liquid level program, spraying cycles and do countless other tasks with unfailing accuracy and amazing speed.

Write for your copy today

PHOTOSWITCH INCORPORATED
75 Broadway, Cambridge 42, Massachusetts

▼ BRIEFITT—Identify by IEN-5515 if you write the maker ▼

MOVE 3 TONS 176 FEET IN 60 SECONDS
you can do it with a Yale Worksaver electric lift truck

- Electric power does all the heavy work
- Operator shifts and steers
- "Safety first" design—brake goes on, power goes off when handle is vertical or horizontal
- Battery power for two days' operation before recharging
- Ten types available. Capacities to 6,000 lbs.

WRITE FOR LITERATURE

YALE THE YALE & TOWNE MANUFACTURING CO.
Roosevelt Boulevard • Philadelphia 15, Pa.
HAND LIFT AND POWER TRUCKS • HAND AND ELECTRIC HOISTS • INDUSTRIAL DIAL SCALES

▼ BRIEFITT—Identify by IEN-5518 if you write the maker ▼

Here's Where

HY-PRO taps paid 78 to 1

for a Plastics Manufacturer

PART: Molding Knobs For Iron Handle

PROBLEM: Taps being used to thread these knobs developed points, but cost, based on number of knobs threaded, failed to approach economy figures by breaking off taps.

Then They Called in the HY-PRO Sales Engineer

HY-PRO SOLUTION: He'd be a Engineer who'd go with a set of special taps having their exclusive HARDENELL surface treatment. Results obtained in this highly abrasive plastic are fantastic—8,000 threaded knobs per tap.

Rx Let the HY-PRO Sales Engineer help you solve your tapping problems. Call or write your nearest HY-PRO Sales Engineer today.

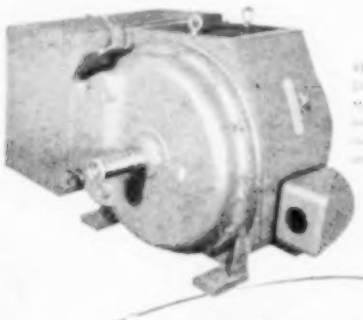
Order from your Distributor

HY-PRO TAPS HY-PRO TOOL CO.
NEW BEDFORD, MASSACHUSETTS
A SUBSIDIARY OF CONTINENTAL SCREW COMPANY

▼ REFER TO—Identify by IEN-5519 if you write the maker ▼

T-J Air and Hydraulic Cylinders are built for 1001 tough jobs in industry ... where pushing, pulling or lifting is needed ... 1,700 lbs. or 50,000 lbs. Available in many standard sizes and styles ... both cushioned and non-cushioned types. Backed by 52 years' experience ... built for long life dependability. Write for latest catalog. The Tomkins-Johnson Co., Jackson, Michigan.

▼ REFER TO—Identify by IEN-5520 if you write the maker ▼



RELIANCE DIRECT DRIVE MOTOR with integrally mounted blower and filter

... another example of the application of

electrical insulating materials

made with

FIBERGLAS* Yarns

to help achieve resistance to hot spot temperatures

Reliance's new direct drive motor protects Long Hamilton's "36" series pumps like this

A NEW MANUAL OF FIBERGLAS GLASS-BASE MATERIALS IS READY NOW. SEND FOR YOUR COPY

OWENS-CORNING FIBERGLAS Yarns

OWENS-CORNING FIBERGLAS CORP. — ELECTRICAL SALES DIVISION
Dept. 920, 16 East 56th Street, New York 22, N. Y.

▼ REFER TO—Identify by IEN-5522 if you write the maker ▼

WINCH . . Worm driven assembly for 1½ to 3 ton truck, rates 10 ton

Source: RAMSEY WINCH MFG. CO.
Box 1035-A, Tulsa 8, Okla.

Model 300 is a unit ... Incorporating a ... worm-and-gear drive, it is ... Brake ... Wrapper ... A ... handling ... type hooks is standard. Brake ... this worm gear is designed ... Overall length ... Weight ... See Page 91 for more ...

▼ REFER TO—Identify by IEN-5523 if you write the maker ▼

ROCK DRILLING . . Carbide tipped tool, triangular section, for rock, concrete

Source: KENNAMETAL INC.
100 Lloyd Ave., Latrobe, Pa.

Tri-Point ... made from ... bar ... for operation with ... pneumatic ... Hammer ... in ... granite, sandstone, hard concrete ... The ... shank is tipped with the ... carbide ... This ... Shape is made by ... sides ... grinding ... to ... or ... Length is ... to ... for ... Drawing ...

▼ REFER TO—Identify by IEN-5524 if you write the maker ▼

STAPLING . . Hammer type tool guides and drives staples to ⅜ in.

Source: PASLODE CO.
2214-18 N. Western Ave., Chicago 47, Ill.

Type SH-1 is a ... hammer-type stapling ... that ... takes ... to 160 staples in a ... supply ... at a time, to be ... guided ... to be driven ... when ... the operator swings the tool and strikes a surface. The hammer will take staples with ⅜ to ⅝ in. leg ... length. List price is $35. Staples run at $1.50 to $1.80 per box to box of 200 or more boxes. Each box holds 5,000 staples of the type used by the tool.

All Makers of These And All Other Products Are Listed In THOMAS' REGISTER ... Descriptions ... Ratings ... See Page 91

▼ REFER TO—Identify by IEN-5525 if you write the maker ▼

WHEN you haul with Moto-Bug you have full power forward and reverse ... for traveling 1 ... to 4 m.p.h. in either direction ... for backing up ... for spotting. There's no pushing, no pulling. Operator takes it easy ... rides on rear step ... has positive steering wheel for effortless driving. Handy 33" width clears narrow doorways, crowded aisles ... turns in own length. Simple, standard-make 4 h.p. gasoline engine takes full load up 20% ramps. Carries 10 cu. ft. or big-capacity hopper ... 1200 lbs. on sturdy 4-ft. flat-bed platform. Fore-lift attachment available. You'll be surprised at the low initial cost ... Moto-Bug quickly pays for itself with more production per man-hour. Get the facts from your Kwik-Mix distributor, or write us NOW.

KWIK-MIX COMPANY (Roadwing Subsidiary) PORT WASHINGTON, WIS.
Also Mfrs. of: CONCRETE • PLASTER • BITUMINOUS MIXERS

▼ REFER TO—Identify by IEN-5526 if you write the maker ▼

• Brownhoist buckets cost less; they are sold direct from factory to customer ... no dead or profits.

• Brownhoist buckets incorporate ... of years of experience in ... Sorting and ... buckets for handling all types of materials.

• Standard ... type operators, power wheel and link type Brownhoist buckets are available for manual or electric ...

Write for illustrated catalog of Brownhoist Buckets
INDUSTRIAL BROWNHOIST CORPORATION
120 Washington Ave., Bay City, Michigan

▼ REFER TO—Identify by IEN-5527 if you write the maker ▼

This low-cost, portable pump will

MOTORIZE

your hydraulic equipment

Eliminate costly hand pumping. This electrically driven pump serves one or more rams. Production among ... sometimes ... triples. Great on presses, pipe benders, etc. Write for catalog. Buy from leading supply houses.

Blackhawk Mfg. Co., Dept. P1580, Milwaukee 1, Wis.

BLACKHAWK

▼ REFER TO—Identify by IEN-5528 if you write the maker ▼

Want a really dependable source of

AIR POWER?

Ingersoll-Rand
11 Broadway, New York 4, N. Y.

5153

▼ Briefly by IEN - 5529 ▼

for accurate time control of almost any job! ... GE TIME SWITCHES

TYPE T-47 HANDY TIME SWITCH. Here's foolproof time control at rock bottom cost. Use it for floodlighting, for motor or heater control—for any job requiring one ON-OFF operation during 24 hours. Heavy-duty riders are available to permit a second ON-OFF operation. Offers easy setting from five minutes to 12 hours. Price $10.98*

TYPE T-47. Here's a switch that will do special jobs you can't do with it. Perhaps you need a series of ON-OFF operations a day. With imagination and a little bit of tinkering this clock-type switch, together with existing device, it can do wonders.

Use it indoors, use it outdoors . . . use it anywhere that it has access to conveyor control, to refrigerator defrosting, for, oldest pot control. If you've got a job that needs accurate, repetitive timing, here's your best answer. From $25.50*

Both switches are operated by Telechron® motors and feature silver, snap-action contacts. Get in touch with your G-E distributor today, or write for Bulletins GEA-4278 (T-47) and GEA-5113 (T-51). Apparatus Dept., General Electric Co., Schenectady 5, N. Y.

*Manufacturer's suggested retail price

GENERAL ELECTRIC

▼ Briefly by IEN - 5530 ▼

SOME FACTS TO CONSIDER WHEN BUYING WHEELS

TIRE COSTS

Tires account for up to 30% of wheel cost. Good design demands not only proper selection of a tire made by some one manufacturer, but also comparison with those made by other tire manufacturers . . . comparisons made by an independent wheel builder.

INTEGRATED DESIGN FOR WHEEL ECONOMY

Wheel appearance, hub design and tire selection must be coordinated together. For greatest economy, avoid over-designing—aim for taking the most advantage of stock sizes of low cost/pound bearings. Obtain stock delivery with parts interchange. Gleason's fine knowledge assures fast precise rotor assembly. A market changes and product development. Reversible changes for brands alone may save up to 15 to . . . Write today for questions.

GLEASON CORPORATION 530 N. 9th St., MILWAUKEE 3, WIS.

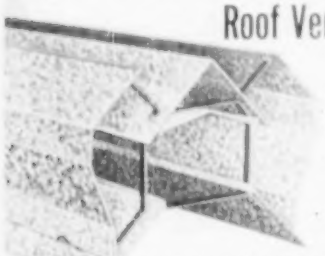
GLEASON WHEELS FOR *Price Competitive* PRODUCTS

▼ Briefly by IEN - 5531 ▼

Open your peak roofs, skylights, "sawteeth"

• • •

Swartwout-Dexter Heat Valve Roof Ventilator



- Sturdy
- Weatherproof
- Damper closes tight when desired
- Ample throat capacity per size

THE Original RIDGE VENT

MILES UPON MILES of this successful swartwout ventilator is in operation. Write for 1951 Catalog. Address: The Swartwout Co., 13600 Athens Ave., Cleveland 11, Ohio (or dial operator for Swartwout Zenith—Bulletin 5018).

The Swartwout Co.

Industrial Ventilation Specialists Since 1904

Equipment for Controlled Air Circulation

▼ Briefly by IEN - 5532 ▼

DEMAGNETIZING . . Electric coil neutralizes magnetism in work pieces

Source: DINGS MAGNETIC SEPARATOR CO. 4718-42 W. Electric Ave., Milwaukee 14, Wis.

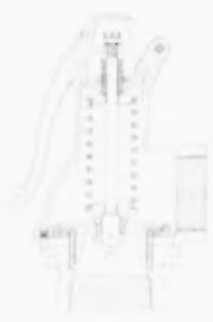
Work pieces that have become magnetized in the course of production are passed through this low demagnetizing coil to neutralize the charge prior to processing or filling operations. Demagnetizing coil charge reverses to peak value and reverses that may be uniform until subsequent operations in the work.

The coil is made in three coaxial tubular diameters of 3, 5 and 8 inches. It is 24" in overall length. It connects to a 220 volt or 440 volt ac power source. Power consumption is 1 to 20 amps or 3.5 to 15 amperes. Installation is at a 45 deg. angle so work pieces can be dropped in by gravity or at horizontal position by connecting with a conveyor belt for continuous action.

▼ Briefly by IEN - 5533 ▼

VALVE . . Pressure relief design for steam boiler service to 15 pounds

Source: MARINE & INDUSTRIAL PRODUCTS CO. 1731-35 Filbert St., Philadelphia 4, Pa.



Series 22 LF is a new valve for low pressure heating boilers. Has the look of pressure regulators, no heat exchangers, orifices. It can be supplied to relieve at preset pressures up to 30 pounds. Three sizes are 2½, 3 and 4 inches. List prices are $28 to $66.

The semi-steel body carries bronze trim. The spring is (also) silicon plated steel. Overall height is about 10 to 15 inches. The valve is approved by ASME and is certified by the National Board of Boiler and Pressure Vessel Inspectors.

▼ Briefly by IEN - 5534 ▼

PROCESSING . . Two reprint articles on chemical process plants for automatic operation

Push button operation of chemical process plant is the subject of two articles assembled into new 16-page bulletin, Instrumentation of Process Plants. The first describes various unit and overall factors considerations. The second presents an example of an automatic plant for resin glue production, shows how simple a control diagram can be when process plants are designed for the operations.

All Makers of These And All Other Products Are Listed in THOMAS' REGISTER — Descriptions — Ratings — See Page 50

▼ Briefly by IEN - 5535 ▼

For Faster Assemblies use a "YANKEE" *Quick-Return* Spiral Screw Driver

Write today for the "Yankee" Tool Book

STANLEY

NORTH BROS. MFG. CO.
Philadelphia 33, Pa.

▼ Briefly by IEN - 5536 ▼

PROTECTION . . . against Wood Decay and Termites with WOLMANIZED® Lumber

Before building, remodeling or reconditioning your plant, we believe you will find the new booklet valuable. It tells you exactly what WOLMANIZED PRESSURE-TREATED LUMBER is. It explains how it protects against damage to wood caused by rot and termites.

It gives you a good idea of the many applications for this remarkable cost-saving lumber—and how it saves time and money for you.

Investigations by qualified technologists prove that WOLMANIZED PRESSURE-TREATED LUMBER lasts three to five times longer than untreated wood. And only WOLMANIZED Lumber provides all these extra advantages—clean, odorless, paintable, non-corrosive, non-bleeding, glueable, and lower fire hazard.

For complete facts on WOLMANIZED LUMBER, write for free informative booklet.

Source: AMERICAN LUMBER & TREATING COMPANY
General Offices: 1640 McCormick Bldg. • Chicago 4, Illinois
Offices in Baltimore, Boston, Jacksonville, Los Angeles, New York, Philadelphia, Portland, Ore., San Francisco, Washington, D. C.

▼ Briefly by IEN - 5537 ▼

NEW... Extremely sensitive PRESSURE & VACUUM Switches

TYPE SB

The new Type SB pressure and vacuum switches are for use in applications in which close on/off differentials and absolutely accurate maintenance of cut-in and cut-out settings are important, especially the control of pressure or vacuum. Available are two pressure models and two vacuum models. The Pressure Switches have adjustable ranges from 0 to 15 psi and adjustable cut-off differentials from 1 psi to 10 psi. The Vacuum Switches have adjustable ranges from 30 to 0 in. Hg. and adjustable cut-off differentials from 1" to 10" Hg. They may be furnished as calibrated, single-pole type or specially designed for some given application.

Electrical ratings are 125/250 V AC between 1000 watts and 660 watts depending on differential. The vacuum Switches offer adjustable ranges from 30" to 0" Hg. as well as adjustable cut-off differentials from 1" to 10" Hg. They may be furnished as calibrated, single-pole type or specially designed for some given application. Electrical ratings of both models 1250 watts at 115/230 V AC.

Special models available for requirements not included in the specifications above.

Write for new bulletin 4926 F giving complete details today.

UNITED ELECTRIC CONTROLS COMPANY
80 School Street
Watertown, Mass.

STANDARD & SPECIAL THERMOSTATS & PRESSURE SWITCHES

▼ Briefly by IEN - 5538 ▼

FOR VENTILATION, FUME & DUST CONTROL

FLEXAUST

SPIRAL-REINFORCED HOSE LIGHT, STRONG AND VERY FLEXIBLE

Flexaust is of proven suitability for a wide variety of suction and pressure uses in ventilation, fume and dust control.

EXTREMELY EASY TO INSTALL — EFFICIENT AND ECONOMICAL IN USE

Various Flexaust types, materials, and other hose types are available.

BIOFLEX	DUCTOVENT
Non-reinforced, collapsible hose	Wire-reinforced, retractable hose

Write for full descriptive data and prices.

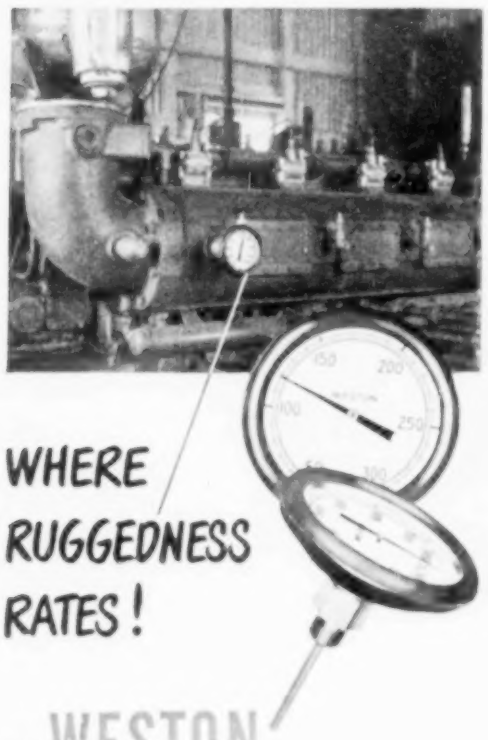
AMERICAN VENTILATING HOSE CO.
Dept. IE-2, 15 Park Row, New York 7, N. Y.
Plant: Amesbury, Mass.

REFER TO INDUSTRIAL EQUIPMENT NEWS IN YOUR INQUIRIES TO MANUFACTURERS SO THEY CAN SEND SPECIFIC INFORMATION

▼ REPRINTS—Identify by IEN-5539 ▼

NOW
ALLEN
Hex-Socket Screws in
STAINLESS STEEL
Available from
Distributors' Stock
Non heat-treated, 18-8 stainless steel hex-socket set screws and socket head cap screws NC threads are now standard and quickly obtainable from your Allen Distributor.
HEX-SOCKET SET SCREWS:
Thirty-three popular sizes, cup point, now standard.
SOCKET HEAD CAP SCREWS:
Thirty-eight popular sizes, flat point, now standard.
WARNING
Other sizes, threads, points, and types of stainless steel are also obtainable on special order.
ALLEN
MANUFACTURING CO
ALLEN HEAD
Hartford 2, Connecticut, U.S.A.

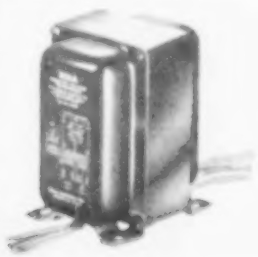
▼ REPRINTS—Identify by IEN-5540 ▼



▼ REPRINTS—Identify by IEN-5542 ▼

TRANSFORMER . . Constant voltage unit particularly for electronic application

Source: SOLA ELECTRIC CO.
4633-35 W. 16th St., Chicago 50, Ill.



▼ REPRINTS—Identify by IEN-5543 ▼

CLEANING . . Powdered material removes oil, fats, from concrete floors

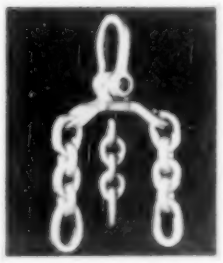
Source: DEMAREST MATERIALS CO.
790-94 Broad St., Newark 2, N. J.

List price is $7.80 to $38.45.

▼ REPRINTS—Identify by IEN-5544 ▼

HANDLING . . Magnet sling chain, load to 25 ton, bronze bushed shackle

Source: WOODHOUSE CHAIN WORKS
249-53 3rd St., Trenton 7, N. J.



▼ REPRINTS—Identify by IEN-5545 ▼

Strong - Sturdy
TRUSCON INDUSTRIAL STEEL DOORS

FREE BOOK!

TRUSCON STEEL COMPANY
YOUNGSTOWN 1, OHIO • Subsidiary of Republic Steel Corporation

▼ REPRINTS—Identify by IEN-5546 ▼

H&B
Jacketed Pipe and Fittings

NOW AVAILABLE IN SPECIAL METALS FOR HANDLING CORROSIVE MATERIALS

H & B Jacketed Pipe and Fittings, which have been used for years in processing non-corrosive materials, are now available in carbon welded steel or stainless steel. Required for handling corrosive materials. In any processing operation where the maintenance of a uniform temperature in the process pipes is essential, an H & B Jacketed Pipe System will assure dependable, economical processing. We welcome inquiries on the handling of either corrosive or non-corrosive materials. Illustrated Bulletin 5-47 will be sent on request.

HETHERINGTON & BERNER INC.
125 KENTUCKY AVENUE • INDIANAPOLIS 7, INDIANA

▼ REPRINTS—Identify by IEN-5547 ▼

▼ REPRINTS—Identify by IEN-5548 ▼

DIRECT—
TWO-WAY ACTION
...with the NEW Hein-Werner "Push and Pull" Hydraulic Jack

RELEASE VALVE
Turn right to PUSH
Turn left to PULL

- Pump operates at any angle...and in any position.
- Easier to set up, and require fewer attachments.
- Protected by safety valves. Cannot be overloaded.
- Cannot become airbound at any angle or in any position.
- Available in 4, 10 and 20-ton capacities, with a wide variety of attachments for hundreds of industrial applications.

Hein-Werner HYDRAULIC JACKS
HEIN-WERNER CORP.
Waukesha, Wis.

▼ BRIEFITT—Identify by IEN - 5549 if you write the maker ▼

SUPERFINISHED I.D.'s of UNIVERSAL DRILL BUSHINGS wear longer save you money

UNIVERSAL ENGINEERING COMPANY

FRANKENMUTH 6, MICH.

▼ BRIEFITT—Identify by IEN - 5550 if you write the maker ▼

A perfect folding chair for every industrial need

American Seating Company

WORLD'S LEADER IN PUBLIC SEATING

▼ BRIEFITT—Identify by IEN - 5551 if you write the maker ▼

3 specific handling problems solved at OTIS TERMINAL WAREHOUSE WITH BAKER FORK TRUCKS

BAKER INDUSTRIAL TRUCK DIVISION

of The Baker-Raulang Company

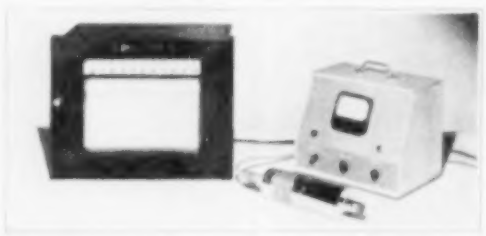
1220 WEST 80th STREET • CLEVELAND 2, OHIO

Baker INDUSTRIAL TRUCKS

▼ BRIEFITT—Identify by IEN - 5552 if you write the maker ▼

GAGE . . Vacuum equipment indicates and actuates a recorder

Source: NATIONAL RESEARCH CORP.
68-72 Memorial Drive, Cambridge 42, Mass.



▼ BRIEFITT—Identify by IEN - 5553 if you write the maker ▼

DISPENSING . . Plastic housing holds and cuts pressure-sensitive tape

Source: TAPEMATIC CORP.
215-19 Astor St., Newark 5, N. J.

▼ BRIEFITT—Identify by IEN - 5554 if you write the maker ▼

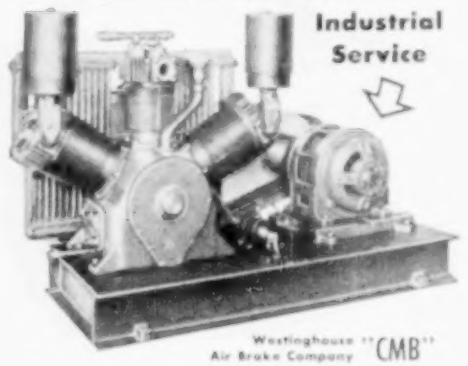
STORING . . Technical data on tanks and tank linings employed for acid storage

▼ BRIEFITT—Identify by IEN - 5555 if you write the maker ▼

SPRAGUE ELECTRIC COMPANY
North Adams, Massachusetts
PIONEERS IN ELECTRIC AND ELECTRONIC DEVELOPMENT

▼ BRIEFITT—Identify by IEN - 5556 if you write the maker ▼

Hero's a Husky "He-Man" AIR COMPRESSOR for Industrial Service



Westinghouse "CMB" Air Brake Company

Westinghouse Air Brake Co.

Industrial Division, Wilmerding, Pa.

DISTRIBUTORS THROUGHOUT THE UNITED STATES
CONSULT YOUR CLASSIFIED DIRECTORY

▼ BRIEFITT—Identify by IEN - 5557 if you write the maker ▼

Speer Here . . .

helps make sound welds here!

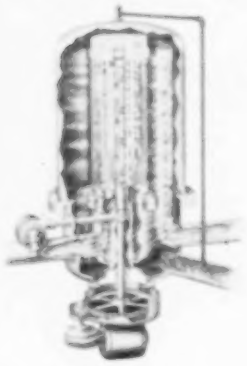
Speer

CARBON COMPANY
ST. MARYS, PENNA.

▼ CIRCLE 5559 on coupon for more data ▼

Save Water Automatically

and save money, too!



Continuously Self-Cleaning without Fluid Waste

CUNO

Fluid Conditioning

Removes More Sizes of Solids from More Types of Fluids

NO FLUID IS BETTER THAN ITS FILTRATION

▼ CIRCLE 5560 on coupon for more data ▼

U/L listed

U.S.I. SOUND POWERED

assures dependable communication

SAVE TIME... DON'T WALK... TALK!

Send for this new catalog describing advantages of U.S.I. Sound Powered Telephones.

SOUND POWERED

CUT COSTS... INCREASE YOUR EFFICIENCY

UNITED STATES INSTRUMENT CORPORATION
SUMMIT---NEW JERSEY

▼ CIRCLE 5561 on coupon for more data ▼

FOTO-FLO MODEL C PHOTO-COPYING MACHINE

New! Speedier! More Economical!

DAYLIGHT OPERATION NO DARKROOM REQUIRED

Makes 3 (18" x 24") Prints a Minute of anything written, printed, drawn or photographed

WRITE DEPT. 50-66

HALOID THE HALOID COMPANY ROCHESTER 3, NEW YORK
Branch Offices in Principal Cities
Photocopy Papers • Photo-copying Machines • Photographic Papers

▼ CIRCLE 5562 on coupon for more data ▼

MARKING . . Hand operated machine feeds traffic line paint by gravity

Source: LASTING PRODUCTS CO.
Pratt & Franklintown Road, Baltimore 23, Md.

▼ CIRCLE 5563 on coupon for more data ▼

TIMING . . Electric interval unit audibly signals and opens a circuit

Source: GENERAL ELECTRIC CO.
Dept. 6X-201, Schenectady 5, N. Y.

▼ CIRCLE 5564 on coupon for more data ▼

WOOD WORKING . . Hand planes, 9 in. smooth and 14 in. jack designs

Source: MILLERS FALLS CO.
55-59 Wells St., Greenfield, Mass.

▼ CIRCLE 5565 on coupon for more data ▼

Stop CORROSION in your Steam System

WITH CORAVOL

CORAVOL is part of a complete mechanical service which provides special formulas of treatment for Boiler Feed Water ... Hot Water Supply ... Refrigerating Brine ... Cooling and Condenser Water ... Rapid Scale Removal ... Complexation ... Algae Control.

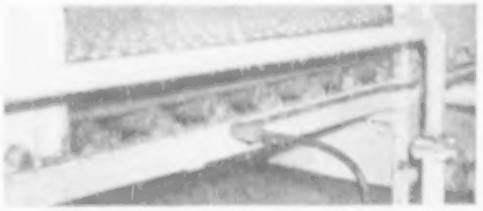
When fed to your steam system, CORAVOL: (1) prevents corrosion in steam and condensate lines, (2) cleans out clogging rust deposits resulting from previous corrosion. Thus, CORAVOL protects lines, increases the effectiveness of heat transfer surfaces, restores original capacity of lines and the operating efficiency of valves and traps.

Write TODAY to Western Chemical Company, 715 Washington Street, Kansas City, Missouri, for complete FREE data about the CORAVOL process.

WESTERN CHEMICAL CO.
715 WASHINGTON KANSAS CITY, MO.

▼ CIRCLE 5566 on coupon for more data ▼

No Weak Spots in Wet Spots



Flamenol® Type T W

GENERAL ELECTRIC

▼ CIRCLE 5567 on coupon for more data ▼

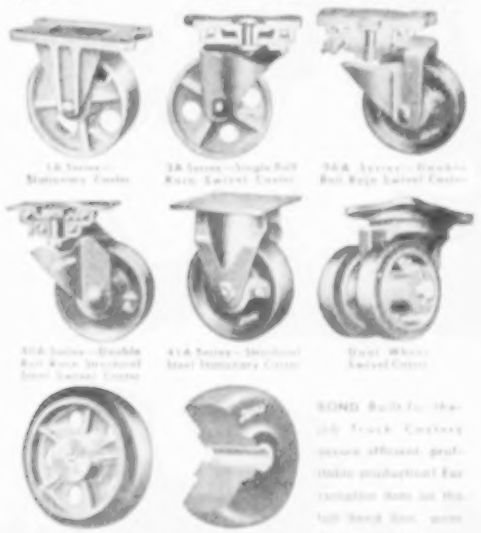
AMERICAN SCREW CO.
completes move to New Plant
... enters New Era in Quality and Service

AMERICAN SCREW COMPANY
Willimantic, Connecticut

AMERICAN PHILLIPS *Screws*

▼ CIRCLE 5568 on coupon for more data ▼

Which One of These *Bond* Casters is Best for Your Job?

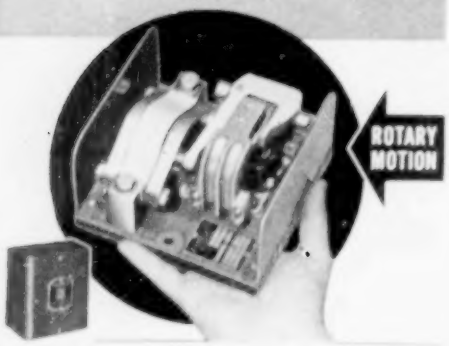


BOND Built for the Job Truck Casters assure efficient, profitable productivity for complete data on the Bond Truck line, write for catalog K-58.

BOND FOUNDRY & MACHINE CO., 304 Penn St., Manheim, Pa.

▼ Briefly—Items listed by IEN-5569 of new items for readers ▼

NEW...Magnet-Operated Valve



• Fast Operation • Low Pressure Drop • Long Life • Low Power Consumption • Compact • Accessible • Easily Installed

Write for Bulletin 9043 Type C, Square D Company, 4041 N. Richards Street, Milwaukee 12, Wisconsin

SQUARE D COMPANY

▼ Briefly—Items listed by IEN-5570 of new items for readers ▼

HANSEN

QUICK CONNECTIVE
HIGH PRESSURE
TWO-WAY SHUT-OFF
COUPLINGS

Both ends of line are positively sealed when you disconnect the Hansen High Pressure Two-Way Shut-Off Coupling. Instantly, metal to metal ball check closes and push plug seats socket. Identical mechanism in male (shown) plug and socket prevents flow of gas or liquid. To disconnect, pull back sleeve coupling disconnects and valves automatically and instantly seal both ends of line.

Where fluid lines may be damaged by sudden strain, coupling can be mounted on bracket to disconnect automatically. Saving fluid from free, protected sealed and undamaged.

Series HP 8000

Also straight through and one way shut off couplings. Write for catalog.

THE HANSEN MANUFACTURING COMPANY
4031 WEST 150th STREET • CLEVELAND 11, OHIO

▼ Briefly—Items listed by IEN-5571 of new items for readers ▼

THERE'S A RIGHT LOCK NUT FOR YOUR JOB!

Chances are four out of five it's An-cor-lox. Check these advantages!

Can't shake loose	Competitively priced
Not affected by sawed-off or drilled bolts	Spins on stud by hand
Can be re-used many times	Locking ring forms a pressure seal
Locking ring on bottom, uses short stud	Not affected by temperature
Uses standard wrenches	Choice of finishes for corrosive or severe atmospheric conditions
Won't damage bolt or work	

An-cor-lox *Lock Nuts*

ESNA-ELCO LOCK CO., INC., An-cor-lox Division, 2330 Bond St., Elizabeth, Conn.

AN ELCO PRODUCT

▼ Briefly—Items listed by IEN-5572 of new items for readers ▼

GRINDING . . Abrasive belt machine for clean up work in production lines

Source: HARVEY L. RAMSAY & CO.
634-38 S. 10th Ave., La Grange, Ill.

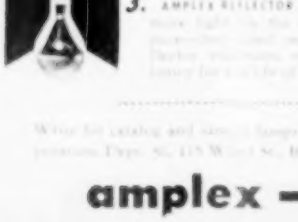
Expeditor is a new abrasive belt machine for clean up work in production lines. Work pieces are mounted on a frame mounted on the pulley on the driving motor. A flat belt runs between the motor pulley and the work pulley. The abrasive belt rides on it in the work area at the front. The arrangement permits swinging the pulley frame to any desired horizontal, vertical and intermediate position. Pulley diameter is 4 inches. The 60-in. abrasive belt is 2½ in. in width. Speed is 7,200 fpm.

The machine [illegible]

▼ Briefly—Items listed by IEN-5573 of new items for readers ▼

TESTING . . Electronic power supply for laboratory use, to 500 volts dc.

Source: CHATHAM ELECTRONICS
473-77 Washington St., Newark 2, N. J.



Model LA-50A [illegible]

▼ Briefly—Items listed by IEN-5574 of new items for readers ▼

BATTERIES — For mine shuttle cars. bulletin presents some interesting conclusions

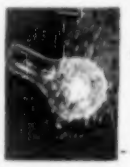
Joint Storage Battery Corp.
[illegible]

A summary of various techniques [illegible] presented in new 32-page booklet, "A Digest of Mine Shuttle Car Operation . . . and Its Effect on Battery Performance," [illegible] on battery-operated cars. Figures given are based largely on DC mine motors tested by the Mining Division of Pennsylvania State College. Any [illegible] are listed.

All Makes of Trucks And All Other Products Are Listed in CHILTON REGISTER — Descriptions — Ratings — See Page 56

▼ Briefly—Items listed by IEN-5575 of new items for readers ▼

3 ways you save on lighting costs



1. AMPLEX "WEATHERCOTE" LAMP. Cuts lamp mortality up to 25% where moisture, frost or moisture weather kill ordinary lamps. Costs just a fraction more.

2. AMPLEX DOUBLE DUTY LAMP. Perfect for high bay and other hard to reach locations. A money-saving, all-service lamp. Single life lamp. Shall outperform almost in half.

3. AMPLEX REFLECTOR LAMP. Delivers more light to the work area. Its [illegible] sealed beam reflector maintains maximum brightness for [illegible] life of the lamp.

Write for catalog and name of Amplex Distributor. Dept. SC, 115 Water St., Brooklyn 1, N. Y.

amplex

INDUSTRIAL, SIGNAL AND HEAT LAMPS • SPECIAL LAMPS • FLUORESCENT LAMPS
MOTOR VEHICLE LAMPS • AVIATION SERVICE LAMPS

▼ Briefly—Items listed by IEN-5576 of new items for readers ▼

RIG IT IN
5 seconds!

[illegible] hook into [illegible] seconds — without [illegible] No loose parts, nothing to drop or lose. Available in 4" to 8" and 12" sheave diameters. Sold in [illegible] everywhere. For rigging all wire rope blocks — 1½ to 200 tons — wide.

American Hoist
& Derrick Company
St. Paul 1, Minnesota

AMERICAN HEAVY DUTY UTILITY SNATCH BLOCK

▼ Briefly—Items listed by IEN-5577 of new items for readers ▼

SEMI-LIVE SKIDS

Typical Ironbound Money-Savers

★ Short-haul units for carrying loads up to 2,500 lbs. safely and easily. Made of new billet steel and selected hardwood. Bolted construction allows replacement of deck. A short haul system is comparatively inexpensive because a few lift jacks will service many skids.

● This semi-live unit has permanently attached box top. Can also be made with removable top or hasing type top if required.

● Semi-live skid with stake pockets and removable side racks. Available also with end racks, wood or pipe stakes or super structures to meet individual requirements.

Bulletin 7-SL illustrates these units.

IRONBOUND
BOX & LUMBER COMPANY
50 HOFFMAN PLACE • HILLSIDE N. J.

SKIDS • SEMI LIVE SKIDS • DOLLIES • FLOOR TRUCKS

▼ Briefly—Items listed by IEN-5578 of new items for readers ▼

TEMPERATURE CONTROL

Five Ranges of 150, 350, 450, 650 and 1000 deg. F.
Thermostatic element operates electric switch.
Switch capacity to 500 watts ac, 50 watts dc.

This Model M Indicating Temperature Control is installed to operate a solenoid or motor valve in a gas, oil or steam line and thus regulate flow to step with heat requirements. It is employed to control the operation of electric heating elements, bakes, motors. It automatically maintains temperature (when you set the indicated pointer on its temperature-indicating scale) in an oven, melting pot, plater, dryer, or any heated equipment.

This electric control is available in two and three wire designs for ac and dc control circuits. The thermostatic element is our meters-actuated flexible unit, powerful, positive, accurate. All elements are changeable. Low price in the complete control range from $62 to $75.

Send for Bulletin 500-C for detail information

THE PARTLOW CORPORATION
4 Campion Road New Hartford N. Y.

▼ Reader-service to IEN-5579 ▼

8 ways better than old-fashioned friction tape

New Polyken **No. 163 ELECTRICAL TAPE**

Exceeds A.S.T.M. Specifications. Three tough mils thick. Unaffected by oil, acid, alkali, moisture, sunlight, abrasion. Stretches for easy application. Conforms to irregular surfaces. Resists corrosive fumes. Available in black, white, red, yellow, blue, green. Ask your POLYKEN jobber about No. 163 today. Free! Write for new booklet. Address POLYKEN Dept. 1150, 252 W. Adams St., Chicago 6.

Another FIRST . . . *by*

Polyken BAUER & BLACK

INDUSTRIAL TAPE

▼ Reader-service to IEN-5580 ▼

Now—

ONE GREASE

will service all grease applications in the majority of plants

SHELL ALVANIA GREASE

Gives all these plant savings:

1. Extends TIME between greasings—Lasts longer, shields bearings longer.
2. Low-cost application—Fewer servicings and only one grease to handle.
3. Simple inventory—Shell Alvania Grease replaces up to 20 brands formerly required.
4. Better protection—against heat, cold and moisture.
5. Greater safety—Insures layers of applying the wrong grease.

Gives all these lubrication advantages:

1. Higher mechanical stability than any mineral-oil grease at operating temperatures.
2. Pumpable at low temperatures—even in unheated storage.
3. Stable at high temperatures—superior to the best "soda" greases.
4. Impervious to water—excellent resistance to washing out.
5. Longer service life—reduced consumption.

The "MILLION-STROKE" Industrial Grease! It proves that one pound can last a pumping engine at over 60 RPM about 7 days (or has contributed a comparable service).

It is a petroleum product of more than Shell Alvania texture—yet it can be pumped at temperatures as low as 20° below zero. Possibly an unprecedented feat for one lubricant. Because the grease could not have been made, it was developed to meet both the requirements and economics.

SHELL OIL COMPANY

50 West 50 Street, New York 20, N. Y.
100 Bush Street, San Francisco 6, California

SHELL

SHELL ALVANIA . . .
The "Million-Stroke" Grease

▼ Reader-service to IEN-5582 ▼

LUBRICATING . . Motor driven pump, battery operated, serves grease gun

Source: BROWN GREASE GUN CO.
50 Tuckaseigee Road, Charlotte 5, N. C.

Portable Electric

The motor

▼ Reader-service to IEN-5583 ▼

AIR CONDITIONING . . Cooling unit also filters, dehumidifies, circulates

Source: YORK CORP.
444 Roosevelt Ave., York, Pa.

New combined

The two units

All Makers of These And All other Products Are Listed in THOMAS REGISTER — Descriptions — Ratings — See Page 50

▼ Reader-service to IEN-5584 ▼

WILLIAMS-HAGER

flanged

Silent check

VALVES

on duty

EVERYWHERE

Dependable protection against water hammer in any position . . . silent operation . . . renewable disc and seat . . . both of materials to suit good installation's needs . . . in standard pipe sizes from ¼ to 24".

Waterworks Service Attachment at small end of 8" by 10" reducer.

Conical and angular pendulum valves protect high pressure pumps at the Longview, Elks Company.

Williams Valves serve the Hot Strip Mill Reheating Furnaces in a large Eastern Steel Mill.

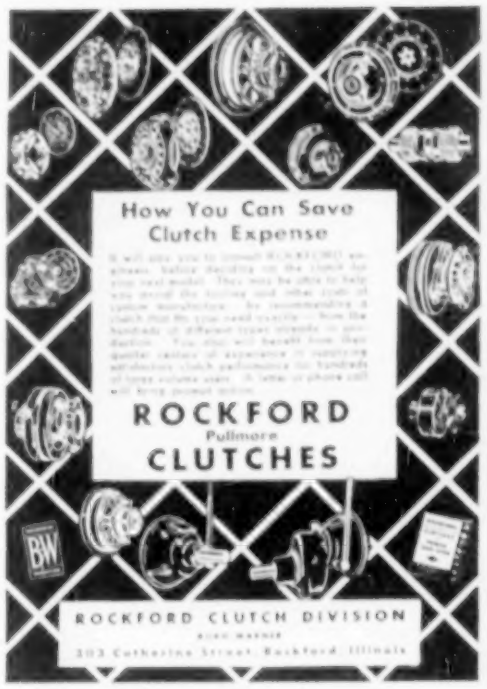
THE WILLIAMS GAUGE CO.

Pump Valves • Water Gauges • Gauge Cocks • Steam Traps • Pump Governors • Feed Water Regulators • Water Columns

FINE PENNSYLVANIA GAGE • PITTSBURGH 33, PA.

Write for Bulletin W-H 100

▼ Reader-service to IEN-5585 ▼



▼ Reader-service to IEN-5586 ▼

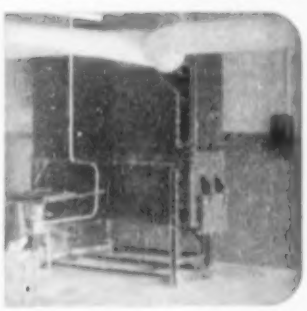
NOW! A wiping tissue 100% grit-free

AUTOMATIC DISPENSER OF PACKAGES

Kimberly-Clark Corporation, Neenah, Wisconsin

▼ Reader-service to IEN-5587 ▼

HYDRO-CLONE



suppresses dust from plastics

Above is the Type "E" Hydro-Clone used to control dust in the plastics division of a large manufacturing plant. The Hydro-Clone is especially suited where space is at a premium and capacity not over 12,000 cfm is required.

Type "E" is of compact design suitable for indoor installation. It reduces dust to harmless dustes . . . requires about 1 gal of water per 1,000 cfm it is treated . . . fully described in Bulletin FV-127.

Write for full information about this and other models for every industrial need.

WHITING CORPORATION

15629 Lathrop Ave.
Harvey, Illinois

FREE

▼ REPRINT—Identify by IEN-5588 ▼

YOU GET **PEAK** PERFORMANCE

WHEN YOU *Specify*

XLO **DRILL JIG BUSHINGS**

For years Ex-Cell-O has been known by American industry as headquarters for precision made bushings. Ex-Cell-O carries one of the largest and most varied stock of drill jig bushings available in the world.

EX-CELL-O CORPORATION • DETROIT 32, MICHIGAN

▼ REPRINT—Identify by IEN-5589 ▼

DO YOU KNOW YOU CAN CUT COPYING COSTS WITH A METHOD THAT'S

60 Times Faster?

. . . and many times better than old-fashioned "copying"

IT'S OZALID

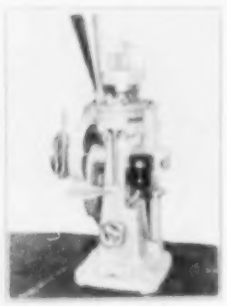
ONLY OZALID GIVES YOU ALL THESE ADVANTAGES AND FASTER, TOO!

Cut Copying Costs . . . Use **OZALID**

▼ REPRINT—Identify by IEN-5591 ▼

TABLET MAKING . . Rotary press, variable speed to 650 tablets per min.

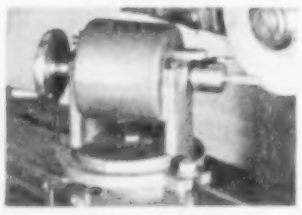
Source: ARTHUR COLTON CO.
3401 E. Lafayette, Detroit 7, Mich.



▼ REPRINT—Identify by IEN-5592 ▼

GRINDING . . Tap sharpening fixture for 2, 3, 4-flute taps, shank to $\frac{1}{2}$ in.

Source: CAR-ANTH MFG. & SUPPLY CO.
409-13 Eichelberger St., St. Louis 11, Mo.



▼ REPRINT—Identify by IEN-5593 ▼

SWITCHES . . Target diagram in bulletin to show action of new switch

▼ REPRINT—Identify by IEN-5594 ▼

WECO Junior

The all-steel union that gives you LEAK PROOF SEALING . . . FASTER MAKE-UP . . . GREATER STRENGTH . . . LONGER LIFE.

1 WECO BALL AND CONE SEAL. Positive, leak-proof sealing.
2 ACME THREADS . . . Rugged. Resist damage and distortion. Make-up faster.
3 RESILIENT, REPLACEABLE GASKET . . . Protects metal-to-metal seal against abrasion, corrosion.
4 KNURLED SUB ENDS. Minimize wrench slippage. Safer.

WELL EQUIPMENT MFG. CORP.

▼ REPRINT—Identify by IEN-5595 ▼

READINGS AT A GLANCE

for BOTH AC and DC

Instant Current Measurements Without Breaking Circuit or Insulation . . .

COLUMBIA **COLUMBIA ELECTRIC MFG. CO.**
4519 Hamilton Ave., Cleveland 14, Ohio

▼ REPRINT—Identify by IEN-5596 ▼

EXAMINE THE DESIGN OF YOUR PRODUCTS AND MACHINES...

no doubt you too can save time—save materials...and increase your profits—by using **NATIONAL RETAINING RINGS**

THE NATIONAL LOCK WASHER CO.
NEWARK 5, NEW JERSEY MILWAUKEE 2, WISCONSIN

▼ ——Identify by IEN-5598 ▼

ALL through the summer—through hot, humid days and hot, humid nights—the biggest thief in America will be stealing your profits. Wherever steel is handled—where it is stamped and rolled or machined, or assembled—where it is pickled or cleaned or assembled—RUST will be there, robbing you of production, robbing you of profits.

But you don't have to put up with this thievery. Your Oakite Technical Service Representative can help you defeat RUST. He has methods and materials for:

1. Removing rust and grease in one operation
2. Preventing rust while parts are being processed
3. Cleaning and conditioning for painting in one operation with protection against rust before and after painting

FREE for help in preventing RUST in your plant, write to Oakite Products, Inc., 26A Thames St., New York 6, N. Y.

OAKITE SPECIALIZED INDUSTRIAL CLEANING MATERIALS · METHODS · SERVICE

▼ ——Identify by IEN-5599 ▼

Better Coating at Lower Cost with

POTDEVIN Coating Machines

Manufacturers in many fields have been dressing up their "POTDEVINS" to cut down operating costs.

Illustrated is Model 2-R for applying any type coating to any kind of material.

Write for POTDEVIN booklet describing various models, their operation and adaptability to your coating problems. Also ask for POTDEVIN booklet showing how POTDEVIN machines are helping others to improve their coating operations. Both booklets are free. Write today. There's a POTDEVIN that will do a good job for you, at lower cost. Why not find out?

POTDEVIN MACHINE CO.
1213 10th St., Brooklyn 15, N. Y.

Designers and manufacturers since 1893 of equipment for Bag Making, Printing, Coating, Gluing and Labeling.

▼ ——Identify by IEN-5600 ▼

IT'S NEW— FREE TO YOU!

Just off the press, here's helpful information on shear knife type, grinding instructions, tolerances and dimensions on rectangular section shear knives, rotary and slitter knives. Useful calculation and conversion tables—all in one 50 page pocket-sized handbook with serviceable red leatherette cover. Get yours now while they last!

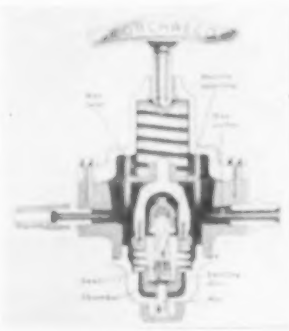
MAIL THIS COUPON TODAY!

HEPPENSTALL COMPANY
4620 Hatfield St., Pittsburgh 1, Pa.
Please send me copy of Shear Knife Handbook.
Name
Company
Address
City

▼ ——Identify by IEN-5601 ▼

VALVE . . Pressure regulator for gas welding and cutting operations

Source: NATIONAL CYLINDER GAS CO.
835-42 N. Michigan Ave., Chicago 11, Ill.



New construction . . . Pressure . . .

▼ ——Identify by IEN-5602 ▼

INSULATING . . Electrical tape, adhesive face, cloth back, 3/4 inch

Source: POLYKEN INDUSTRIAL TAPE
220-24 W. Adams St., Chicago 6, Ill.

Ask for booklet "Tape is a Tool"

▼ ——Identify by IEN-5603 ▼

RESISTOR . . Flat wire wound design, aluminum encased with mica insulation

Source: SMALLCROSS MFG. CO.
8-12 Jackson Ave., Collingdale, Pa.

Flat mounting . . .

All Makers of Items And All Other Products Are Listed In THOMAS' REGISTER Descriptions Ratings See Page 50

▼ ——Identify by IEN-5604 ▼

Titan Brass and Bronze Products

"Quality Alloys since 1915"

- Brass and Bronze Free Cutting Rods
- Brass and Bronze Forging Rods
- Bronze Welding Rods
- Extruded Brass Shapes
- Brass and Bronze Forgings
- Brass Pressure Die Castings

Titan Metal Manufacturing Co.
Bellefonte, Pennsylvania
Offices and Agencies in Principal Cities

▼ ——Identify by IEN-5605 ▼

REQUIRING LOW STARTING CURRENT

SPECIFY Century TYPE RS* MOTORS

CENTURY ELECTRIC CO.
1806 PINE ST., ST. LOUIS 3, MISSOURI
Offices and Stock Points in Principal Cities

▼ ——Identify by IEN-5606 ▼

WIDE SHEETS EASILY SLIT

CUTS METAL 1/8" to 1 1/2"

THE CLEVELAND CRANE & ENGINEERING CO.

STEELWELD SHEARS

▼ ——Identify by IEN-5607 ▼

ROPER Rotary PUMPS

SUPPLY FUEL TO BALDWIN LOCOMOTIVES

FIG. 19 Mechanical Seal

The Roper Rotary Pump on this Baldwin 750 HP Diesel Locomotive delivers 1 gallon of fuel per minute at 10 lbs. pressure at 1750 rpm. Such compliance to exacting specifications is the result of years of specialized experience. Roper pumps have bronze bearings, deep packing box with split rings and split gland, and a port design for ease of installation are but a few reasons why Roper Pumps are selected by Baldwin. Investigate the Roper Series F Pump today! Capacities to 500 g.p.m., pressures to 300 p.s.i.

Send for Literature Today

GEO. D. ROPER CORP.
206 Blackhawk Park Ave.
ROCKFORD, ILLINOIS
DEPENDABILITY SINCE 1897

ROPER Rotary Pumps

▼ Reader Service by IEN - 5608 ▼

▼ Reader Service by IEN - 5609 ▼

▼ Reader Service by IEN - 5610 ▼

▼ Reader Service by IEN - 5611 ▼

PLATING . . Motor driven barrel applies portably in still plating tank

Source: BELKE MFG. CO.
941-45 N. Cicero Ave., Chicago 51, Ill.

▼ Reader Service by IEN - 5612 ▼

MOTOR . . Miniature gear head unit with eleven output speeds 1 to 800 rpm.

Source: ELECTRO ENGINEERING PRODUCTS CO.
4825 W. Kinzie St., Chicago 44, Ill.

▼ Reader Service by IEN - 5613 ▼

CASTINGS . . By precision investment method; data sheets list specifications on 50 available alloys.

All Markets, All Facts And All Other Products Are Listed In THOMAS' REGISTER — Descriptions — Ratings — See Page 10

▼ Reader Service by IEN - 5614 ▼

▼ Reader Service by IEN - 5615 ▼

AGASTAT TIME DELAY RELAY

Readily adjustable . . . flexible . . . instantaneously recycling . . . small, compact and easily mounted

Literature and information without obligation

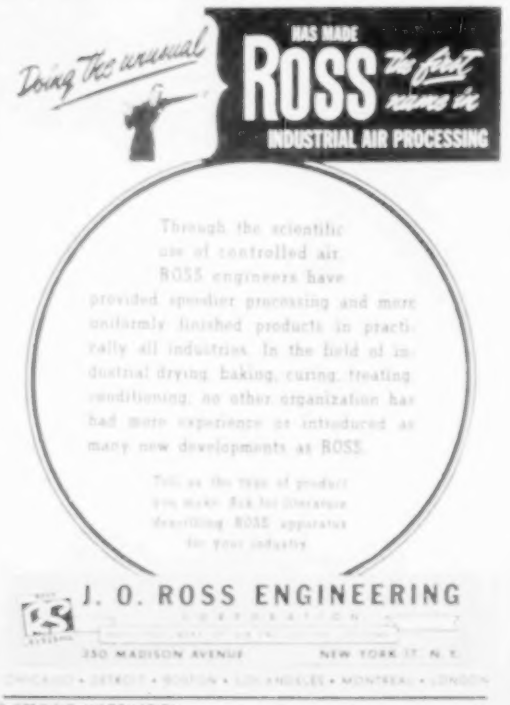
AGA AGA AGA AGA

AMERICAN GAS ACCUMULATOR COMPANY
1027 NEWARK AVENUE • ELIZABETH 3, N. J.

▼ Reader Service by IEN - 5616 ▼

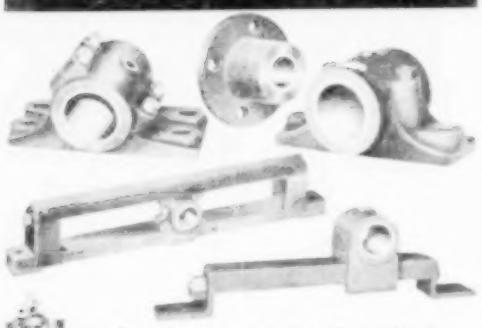
LOW COST! HEAVY DUTY!
Spring Fastener!
TAKE-UP
Versatile Latch Securely Fastens Panels, Hoods, and Flaps
WRITE FOR INFORMATION AND SAMPLE LATCH
DONALDSON COMPANY INC.

▼ Reader Service by IEN - 5617 ▼


Doing the unusual
HAS MADE
ROSS the first name in
INDUSTRIAL AIR PROCESSING
Through the scientific use of controlled air, ROSS engineers have provided speedier processing and more uniformly finished products in practically all industries. In the field of industrial drying, baking, curing, treating, conditioning, no other organization has had more experience or introduced as many new developments as ROSS.
J. O. ROSS ENGINEERING
350 MADISON AVENUE NEW YORK 17, N. Y.

▼ REQUEST—Identified by IEN-5618 on your company letterhead ▼

From Stock
LINK-BELT
BABBITTED BEARINGS



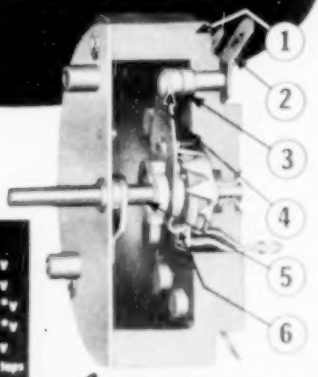
Link-Belt offers a complete line with a wide selection of all types of solid and split bearings, greater lubricant seal, long-wearing, for light or heavy operation.

The economy, simplicity and dependability of babbitted bearings for many industrial applications have been firmly established through many years of service. Send for Catalog.

LINK-BELT COMPANY

▼ REQUEST—Identified by IEN-5619 on your company letterhead ▼

Here's Why
OHMITE
TAP SWITCHES...



5 SIZES
10 amp—150 v
15 amp—150 v
25 amp—300 *v
50 amp—300 *v
100 amp—300 v
*130 volts between taps

...GIVE *years* OF UNFAILING SERVICE!

1. CERAMIC CONSTRUCTION
2. EXTREMELY COMPACT
3. SILVER-TO-SILVER CONTACTS
4. SELF-CLEANING ROTOR CONTACT
5. "DEAD" SWITCH SHAFT
6. "SLOW-BREAK" MECHANISM

OHMITE MANUFACTURING CO.
4813 Flournoy St., Chicago 44, Ill.

Be Right with
OHMITE
RHEOSTATS • RESISTORS • TAP SWITCHES

▼ REQUEST—Identified by IEN-5621 on your company letterhead ▼

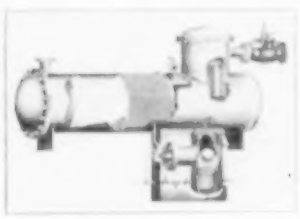
SIGNALING . . Lights and horn signal normal and abnormal conditions

Source: FANALARM PRODUCTS INC.
7214-18 N. Clark St., Chicago 26, Ill.

▼ REQUEST—Identified by IEN-5622 on your company letterhead ▼

SEPARATING . . Combination assembly takes dirt, water, air, from liquids

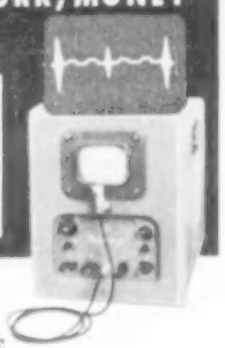
Source: WARNER LEWIS CO.
815-19 N. Lewis Place, Tulsa 8, Okla.



▼ REQUEST—Identified by IEN-5623 on your company letterhead ▼

SAVE TIME, WORK, MONEY
TEST:

- RAW MATERIALS
  — Before Processing
  — After Processing
- METAL PARTS
- MACHINE COMPONENTS



SPERRY
Ultrasonic
REFLECTOSCOPE

The REFLECTOSCOPE is the fastest, most economical means of determining the soundness of raw materials before and after processing. The condition of the material is shown instantaneously on the screen. Size of flaws and inclusions that might have been spoil-making, defective metals is saved, whether employed for purposes of maintenance, safety, or quality control, the REFLECTOSCOPE is a profitable investment. Phone or write for information today.

ASK ABOUT OUR LEASE AND COMMERCIAL TESTING SERVICES

SPERRY PRODUCTS, INC.
Danbury, Connecticut
PHONE: Danbury 8-3581

ALSO MANUFACTURERS OF HYDRAULIC CONTROLS AND SELF-SEALING COUPLINGS

▼ REQUEST—Identified by IEN-5624 on your company letterhead ▼

Automatic controller *introduces* **5 important features**

BRISTOL

AUTOMATIC CONTROLLING, RECORDING AND TELEMETERING INSTRUMENTS

▼ REQUEST—Identified by IEN-5625 on your company letterhead ▼

MORE THAN JUST A *New Catalog*
on EYE and RESPIRATORY SAFETY EQUIPMENT

Send for it today!

Receive general information on Willson complete respiratory and eye safety equipment, plus many exciting features that you'll find much worthwhile in Canada and at:

- Protective specifications for safety glasses
- Products for eye protection
- Light transmission tables for filter glasses
- Tables of respiratory hazards
- Gas mask selector tables

and other useful data that will help you select the proper safety equipment to meet specific hazards.

WILLSON

WILLSON PRODUCTS, INC., 217 WASHINGTON ST., READING, PA.

▼ REQUEST—Identified by IEN-5626 on your company letterhead ▼

TANK HEATING AND COOLING *COSTS LESS* with...

PLATECOIL

LESS MAINTENANCE

MORE PRODUCTIVE CAPACITY

NO LOSS OF SOLUTION

PLATECOIL
Division
HOLD-HOLD MFG. CO.
LANSING 4, MICHIGAN

▼ Reader's request to IEN - 5627 if you write the maker ▼

WRITE TODAY!

DICO'S 1950 CATALOG NOW READY!

A UNIQUE CATALOG SIMPLIFYING YOUR WHEEL ENGINEERING PROBLEMS

A MODERN LINE OF INDUSTRIAL WHEELS 3"-16" FOR PER DIAMETER

DICO CORPORATION
402 S.W. 16TH ST., DES MOINES 5, IOWA

For Your Special Information

SUBJECT INDEX IEN S-19

We believe it will be advantageous [illegible] to you will have the same other engineers [illegible] with the name and usage of any product under [illegible] each page of your name and will be suggested procedures of the users. If you write the each other "engineered" and will find things which and quickly locating purposes you otherwise might miss.

Editorial descriptions included in the product index carry a distinguished mark, so you can see [illegible] from those of advertisements. If you [illegible] to refer back to an issue you can tell at a glance in the issue which page contained [illegible] product description and which the product was [illegible].

Products and services [illegible] in this issue are indexed and cross-referenced [illegible] in addition to their function. This is done to help you find all products and services associated with a certain function or [illegible] way to describe what is being advertised. A good [illegible] all outstanding coverage, covering

READER SERVICE FORMS IEN S-20

The two forms [illegible] in this issue [illegible] for your use in writing for information on the [illegible] which have been assigned to carry inquiries for the coverage number of inquiries they can [illegible]. However, if you [illegible] to use them, [illegible] Those Dealer is given to refer to the nearest source, just mark the numbers on the corresponding [illegible] of the form. We will find them and handle them for you.

DID YOU CHANGE YOUR ADDRESS? IEN S-21

If you did, [illegible] with new or revised address and complete information on the Request [illegible]. Please do the same [illegible] as the number. Remember, this is a request to [illegible] your business address to us to help us to [illegible] your copy of Industrial Equipment News [illegible] promptly.

MANUFACTURING IEN S-22

Canadian [illegible] and used [illegible] are available for United States makers of [illegible] and [illegible], presses, jigs and [illegible] who have no [illegible] arrangement at present. We know of an Eastern Canadian firm with a foundry and [illegible] shop, machine shop, interested in connections.

SELLING IEN S-23

A company in the New York [illegible] area [illegible] contact with a manufacturer of [illegible] to supplement the present sales line of [illegible] and [illegible] handling equipment. It offers an [illegible] crew and an engineering department capable of making material handling surveys and complete designs.

IEN ON MICROFILM IEN S-24

You can get a [illegible] of all the pages of Industrial Equipment News for 1949 on a roll of standard 35mm film, ready to [illegible] into standard type [illegible]. This service is available through University Microfilms, [illegible] Ann Arbor, Mich. It operates on a [illegible] basis so available for purchasing only [illegible]. List price for the complete set of issues [illegible] is about $30.

Top Management

YOUR BOOST

IS NEEDED MOST

▼ Reader's request to IEN - 5631 if you write the maker ▼

CHAMPION
expanding mandrels
accurate • dependable • economical

General Service Set
of 5 for a range of ½" to 1"

The WESTERN Tool & Mfg. Co., Springfield, Ohio

▼ Reader's request to IEN - 5628 if you write the maker ▼

INCREASES TAP LIFE
by Guided Accuracy

$18.75 POSTPAID

H. D. HERDER TOOL SPECIALTIES
3734 E. MICHIGAN AVE.
KALAMAZOO, MICH.

▼ Reader's request to IEN - 5632 if you write the maker ▼

CAPCO
DOCK COVERS
OFFER YEAR 'ROUND PROTECTION

Can be installed inside or outside of dock. Size models for various door sizes.

SOLD AT A LOW COST

... and the cost is especially low because it pays for itself many times ... saves time and money over many years.

- PREVENTS ACCIDENTS
- ONE MAN CAN OPERATE
- FIREPROOF
- WATERPROOF
- DURABLE — LONG LIFE
- DEPENDABLE

BEAT THE BAD WEATHER

CAPCO Dock Covers completely enclose the space between car and building doorways, protecting loading and unloading during bad weather. Recommended by safety engineers. No more wet merchandise in the rain ... no more interruption during winter. Here's your insurance against loss of either heat or refrigeration; you have practically the same as indoor loading.

CAPCO

Be sure to write for illustrated literature and prices.

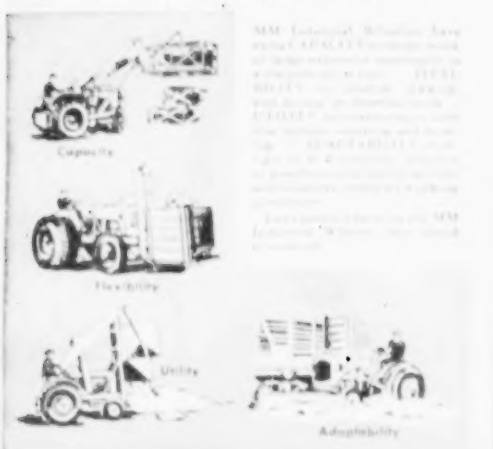
622-24 PROSPECT AVENUE • KANSAS CITY 1, MISSOURI

▼ Reader's request to IEN - 5629 if you write the maker ▼

MANUFACTURERS LARGE OR SMALL

MODERN MACHINERY INDUSTRIAL WHEELERS

. . . SERVE THEM ALL!



MINNEAPOLIS-MOLINE
MINNEAPOLIS 1, MINNESOTA

▼ Reader's request to IEN - 5630 if you write the maker ▼

THOMAS' REGISTER
of
American Manufacturers

$15.00 F.O.B. New York
Renewal $12.50

7,900 pages of vital information to facilitate effective purchasing of all products made in U. S. A.

HABITUALLY CONSULTED BY [illegible] DEPARTMENT HEADS REPRESENTING 80% OF THE TOTAL INDUSTRIAL PURCHASING POWER OF THE U. S. WHO ARE CONCERNED WITH WHAT TO BUY AND WHERE TO BUY

96% ABC Paid Circulation

THOMAS PUBLISHING COMPANY
461 EIGHTH AVENUE • NEW YORK 1, N. Y.

▼ BRIEFITS—directly to IEN - 5634 if you write the maker. ▼

R&IE STUARD AUTOMATIC
AIR SEPARATOR
RAILWAY and INDUSTRIAL ENGINEERING CO.
KERR ST. GREENSBURG, PA.

▼ BRIEFITS—directly to IEN - 5635 if you write the maker. ▼

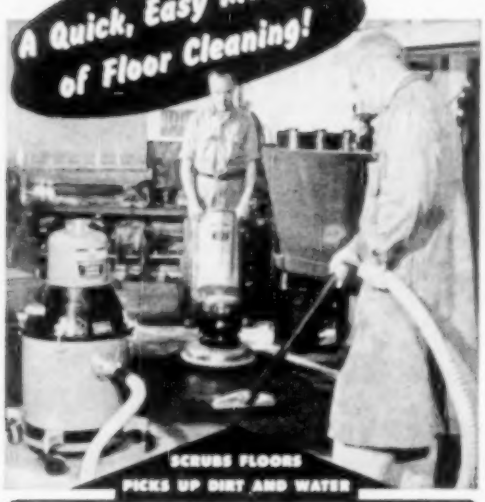
Accurate temperature reading cuts costs — reduces waste!

USE THE **NEW PYRO** LOW COST
Surface Pyrometer

PYRO OPTICAL PYROMETER
TEMPERATURES AT A GLANCE!

PYROMETER INSTRUMENT COMPANY
Plant and Laboratory
BERGENFIELD 21 • NEW JERSEY

▼ BRIEFITS—directly to IEN - 5636 if you write the maker. ▼



Mechanized floor cleaning the Multi-Clean way saves time, labor, and money . . . does a better job. Learn how Multi-Clean can solve your problem. Write today.

MULTI-CLEAN
Dept. 31A
2277 Ford Pkwy.
St. Paul 1, Minnesota

▼ BRIEFITS—directly to IEN - 5637 if you write the maker. ▼

HONING . . Motor driven machine, bore diameter from .120 to 2.625 in.

Source: SUNNEN PRODUCTS CO.
7902 Manchester Ave., St. Louis 17, Mo.

▼ BRIEFITS—directly to IEN - 5638 if you write the maker. ▼

LAYOUT . . Granite parallels for precision work on a surface plate

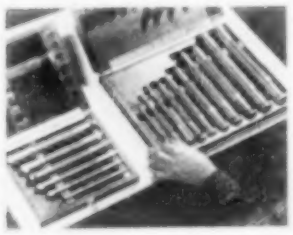
Source: KAHN GRANITE SURFACE PLATE CO.
1147-51 Flatt Circle, Dayton 7, Ohio

Packed in pairs in oak cases

▼ BRIEFITS—directly to IEN - 5639 if you write the maker. ▼

BROACHING . . Assembled sets of push type adjustable broaches

Source: KASE MACHINE CO.
18423 Buffalo Ave., Cleveland 19, Ohio



Sets No. 10 and No. 15 have been added to this company's growing line of push-type broaches. The former consists of seven broaches and covers the range .060 to .188 in. bore diameter. The latter assembly has nine broaches and covers the range .188 to .375 in. The assemblies are designed to meet customers' specifications.

All Makers of These And All Other Products Are Listed in THOMAS' REGISTER — Descriptions — Ratings — See Page 50

▼ BRIEFITS—directly to IEN - 5640 if you write the maker. ▼

TAMES A POWER THROB
Eliminates Vibration
On Two Diesel Exhaust
PENNSYLVANIA FLEXIBLE METALLIC TUBING CO.
Philadelphia 42, Pa.
Penflex... HEART OF INDUSTRY'S LIFE LINES

▼ BRIEFITS—directly to IEN - 5641 if you write the maker. ▼

MAKE TOUGH, METAL CUTTING JOBS EASY!

STAR Steelsite Metal Marking Crayons

CLEMSON
Makers of Wood and Power Hacksaw Blades, Frames, Metal Cutting Band Saw Blades and the Clemson Lapet Machines.

▼ BRIEFITS—directly to IEN - 5642 if you write the maker. ▼

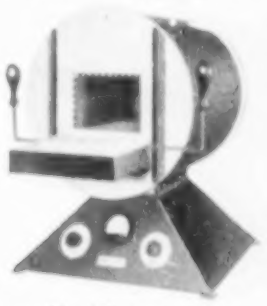
HEVI DUTY ELECTRIC COMPANY

A NEW HEVI DUTY
MUFFLE FURNACE

With Many Advantages For
1850° F. TEMPERATURE

FOUR STANDARD SIZES

Write for Bulletin LAB-849



★ Less Heat Loss — Improved Insulation and No Bloatout
★ Better Control Through a 36 Step Tap Changing Transformer in the Pyramidal Base
★ Pyrometer and Transformer Control Assembly in Easily Removed Base Drawer
★ Reversible Multiple Unit Heating Elements

HEVI DUTY ELECTRIC COMPANY
MULTIPLE UNIT
MILWAUKEE 1, WISCONSIN

▼ BRIEFITS—directly to IEN - 5643 if you write the maker. ▼

Announcing NEW Semi-Automatic
PINES BENDING MACHINE

SAVES TIME
CUTS COSTS
on
SHORT RUN
PRODUCTION
and
MAINTENANCE WORK

SPECIFICATIONS
PINES SERIES 1450 BENDER
- Maximum Capacity — 1" O.D. 18 ga. steel tube
- Minimum Radius of Bend — 6" to centerline
- Length of Tubes — Up to 5 ft. standard
- Bending Speed — 25 R.P.M.
- Working Height — 35"
- Overall Size (Floor Space) — 3 x 7
- Pressure — 1000 P.S.I.
- Pump Motor — 3 H.P.
- Pump — 3 G.P.M. (Volume)
- Optional — Adjustable stops — provision for any length of tube, standard for almost all bends.

Fast, Easy to Operate—
Forms Smooth, Neat Bends Quickly
Requires many close, uniform hand bending operations. Is especially adapted to set shops or work formerly considered too complex for fully automatic equipment. Easy and safe for operator. Hydraulic bending arm forces smooth, non-crimping bends against clamp and die surface for sliding fit. Dies are operated by hand toggle levers. Hand wheel provides adjustment angle of bend allowance. Especially productive. 300 bends per hour on 1" x 16 gage steel tube.

Ask for An Analysis of Your Bending Problems
Write today for free literature. Find out how a Pines Bender can help you. We want to assist with ideas for an analysis of your bending problem. There's no obligation.

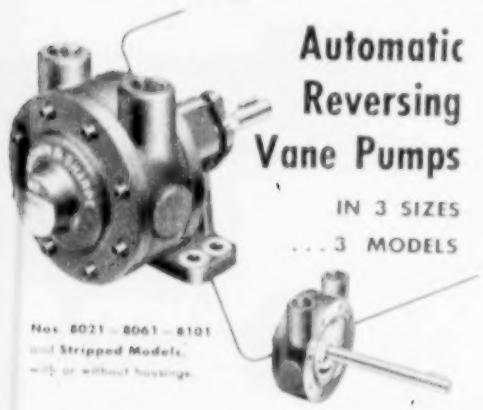
PINES ENGINEERING CO., Inc.
Specialists in The Tubular Equipment

▼ Alemite VERSATAL PUMPS For Faster, Easier, Cleaner Glue Handling

ALEMITE Versatal

▼ IEN-5644

▼ Automatic Reversing Vane Pumps IN 3 SIZES . . . 3 MODELS



Nos. 8021 – 8061 – 8101 and Stripped Models, with or without housings.

FOR LUBRICATION SYSTEMS on machines and mechanisms that reverse. Pumps maintain unidirectional delivery regardless of direction of shaft rotation. Other advantages: easy changeability of flow direction from one port to the other; 4 different positions of foot mounting; stripped models for integral mounting. Write for new Bulletin. Brown & Sharpe Mfg. Co., Providence 1, R. I., U. S. A.

We urge buying through the Distributor

BROWN & SHARPE IBS

▼ IEN-5645

▼ AMAZING, NEW, WATERPROOF, GLASS-REINFORCED PAPER GLAS-KRAFT

PROVIDES POSITIVE ALL-WEATHER PROTECTION

GLAS-KRAFT IS VERSATILE

- Packaging & Packaging Machinery Uses
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GET GLAS-KRAFT

GLAS-KRAFT, Inc.
LONSDALE, RHODE ISLAND

▼ IEN-5646

▼ TESTING . . Pre-built screen room for interference-free electronic tests

Source: ACE ENGINEERING & MACHINE CO. 3642-46 N. Lawrence St., Philadelphia 40, Pa.

Bulletin.

▼ IEN-5647

▼ MARKING . . Embossed metal tags for pipe line and valve identification

Source: JAS. H. MATTHEWS & CO. 3948 Forbes St., Pittsburgh 13, Pa.

▼ IEN-5648

▼ PUMPS . . For handling fatty acids the subject of article in house publication

Major article

▼ IEN-5649

All Makers of These And All Other Products Are Listed In THOMAS' REGISTER — Descriptions — Ratings — See Page 50

▼ NP PRE-ENGINEERED Pneumatic DOOR OPERATORS

NATIONAL PNEUMATIC CO., INC.
Boston • Graybar Bldg., New York • Chicago

▼ IEN-5650

▼ BOOK-OF-THE-MONTH every month!

The RUBEROID Co. built-up roofings

EXECUTIVE OFFICES: 500 Fifth Ave., New York 18, N. Y.

▼ IEN-5651

▼ IEN-5652

▼ The Most Varied Line of Stainless Steel Products under one roof!

A Bucket or an 8" Pipe

Woodruff Keys or Pipe Fittings

A Valve or a Cotter Pin

An 0-80 Nut or a Wood Screw

Scour cloths, dippers, balls, sanitary fittings, machine screws, gadgets and more gadgets

Types 302—303—304—316—347
Carpenter 20

Catalogue on Request

SCHNITZER ALLOY PRODUCTS COMPANY
409 Pine Street
Elizabeth, New Jersey

▼ IEN-5653

▼ Adjustable GLENNY BROACHES FOR PRECISION KEYWAY CUTTING

BROACHES

ADAPTERS

COMPLETE KIT

GLENNY broaches are complete packaged units. Each kit contains specified standard size broach, interchangeable blades, and bushing-type adapters which permit keyway cutting in six different diameter bores. Steel shaving case with wood insert for tool protection is included.

WRITE FOR BULLETIN NO. 57

KASE MACHINE CO.
18523 BUFFALO AVENUE, CLEVELAND 19, OHIO

REFER TO INDUSTRIAL EQUIPMENT NEWS IN YOUR INQUIRIES TO MANUFACTURERS SO THEY CAN SEND SPECIFIC INFORMATION

▼ REFER TO IEN-5654 ▼

Interlocking wires lace together to form a continuously flat and extremely flexible open mesh conveyor belting. Simple to install, it is positively driven, easily guided, readily cleaned and quickly repairable.

Available in stainless steel, it can be supplied in light to heavy gauges, and in widths from 2". Special sizes, designed to your specifications, can be supplied at no extra charge. Most belts can be delivered from stock.

For typical applications and illustrated uses write

WIRE BELT COMPANY
OF AMERICA
750 Main Street, Cambridge 39, Mass.

▼ REFER TO IEN-5657 ▼

AIR CONDITIONING . . . Space unit cleans, cools, circulates air, can heat

Source: FRICK CO.
320 Broadway, Waynesboro, Pa.

Refrigerant

The face of this

Blower rating

The housing

▼ REFER TO IEN-5660 ▼

SEND FOR THIS NEW

CATALOG OF WELDING ELECTRODES

The new Murex catalog of mild steel arc welding electrodes presents complete data on performance, mechanical properties and recommended procedures for the seven mild steel electrodes in the Murex line. You'll find it useful in selecting the right mild steel rod. Write for your copy today!

Or, if your welding operations involve other than mild steel, ask for data on Murex electrodes for welding stainless steel, low alloy steels, bronze or aluminum. There are seventy Murex electrodes from which to choose an electrode exactly suited to any job.

MUREX ELECTRODES

METAL & THERMIT CORP.
120 BROADWAY NEW YORK 5, N. Y.

NEWARK PHILADELPHIA PITTSBURGH CLEVELAND
E. CHICAGO, IND. MINNEAPOLIS SO. SAN FRANCISCO

▼ REFER TO IEN-5555 ▼

Phillips "Skid Dumps" and "Phil-Dumps" . . . made in a variety of models, sizes and capacities . . . provide materials handling equipment which can be (1) used with fork or platform lift trucks, (2) hand pushed or (3) pulled by tractor or truck. All automatically dump, material, return and lock in upright position by means of an automatic safety lock. Available in capacities from ½ cu. yd. to 3 cu. yds. for your requirements.

Write today for Bulletin E.

PHILLIPS
PHILLIPS MILL SUPPLY COMPANY
PITTSBURGH, PA., Manufacturers Since 1853
MINE AND INDUSTRIAL CARS · FABRICATED STEEL · IRON CASTINGS

▼ REFER TO IEN-5658 ▼

WHEEL . . . Water tight assembly, 4 by 8 pneumatic tire, roller bearing

Source: AEROL CO.
2818-22 Ontario St., Burbank, Calif.

Neoprene

Recommended loading at

The construction

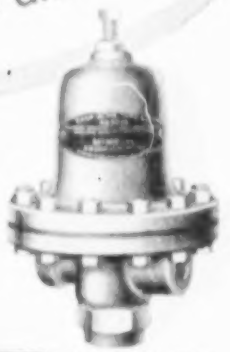
All Makers of These And All Other Products Are Listed In THOMAS' REGISTER — Descriptions — Ratings — See Page 96

▼ REFER TO IEN-5659 ▼

Superior STEAM GENERATOR

▼ REFER TO IEN-5661 ▼

The problem . . .
The answer . . .



How to reduce pressures as high as 2,500 pounds down to working pressures. Cash-Acme Type LS Pressure Reducing Valve will do it. This valve is ALL BRONZE—with Nitralloy trim for longer service.

CASH-ACME *Automatic Valves*

Ask your Mill Supply dealer for information about the FULL LINE of Cash-Acme Automatic Valves.

A. W. CASH VALVE MANUFACTURING CORP.
3612 EAST WABASH AVENUE, DECATUR, ILLINOIS, U. S. A.

▼ REFER TO IEN-5662 ▼

it's a DRAGLINE CRANE CLAMSHELL BACKHOE and now... THE HYSTAWAY is also a SHOVEL

HYSTAWAY — 3 tools in 1 — for mounting on all "Caterpillar" DE and current series D7 track-type tractors (Dragline, Crane and Clamshell also applicable to D6.) Do in 2 hours, off in 1.

The Hystaway Shovel Front

HYSTER COMPANY
2163 S. E. Clackamas, Portland 6, Oregon
2163 North Adams Street, Peoria 1, Illinois

REFER TO INDUSTRIAL EQUIPMENT NEWS IN YOUR INQUIRIES TO MANUFACTURERS SO THEY CAN SEND SPECIFIC INFORMATION

▼ BREVITY—Identify by IEN - 5663 if you write the maker ▼

CONTROLLED TENSION
built into every lock washer by exclusive manufacturing process and precision heat treating
DIAMOND G SPRING LOCK WASHERS
POSITIVE HOLDING POWER
under all conditions is assured by factory tests in Garrett's laboratories . . . performance proof on all types of products
DIAMOND G SPRING LOCK WASHERS
LONGER SERVICE
with correct tension on bolt, nut and assembly parts, prevents sides extra protection on every product
DIAMOND G SPRING LOCK WASHERS
AT YOUR SERVICE
Garrett's line of lock washers engineering service and quick delivery . . . plus many other metal parts. Write for free washer handbook
G. K. GARRETT CO. INC.
GARRETT

▼ BREVITY—Identify by IEN - 5664 if you write the maker ▼

CAUTION

To Ventilator Buyers

If you want to be sure of what you're getting when you buy ventilators, insist on certified capacity ratings based on tests made with wind blowing in all directions, as indicated below:

The First Scientific Improvement in Ventilators in over 50 Years!

Breidert Air-X-Hauster Type B

Only such tests can guarantee the capacities a ventilator will deliver under actual operating conditions! Don't be misled into buying on size alone. Insist on the correct size for the capacity required.

The Breidert Air-X-Hauster has been tested by Smith, Emery & Co. of San Francisco, Pacific Coast branch of the Pittsburgh Testing Laboratory, with wind directed at all angles shown above. It is the only ventilator on the market with published certified ratings based on such tests. Breiderts are extensively used on industrial, commercial and residential buildings all over the country, and on most types of pleasure craft and ships.

For detailed information and free Engineering Data Book on the Breidert, send the coupon.

G. C. BREIDERT CO.

3129 San Fernando Rd., Los Angeles 65, Calif.

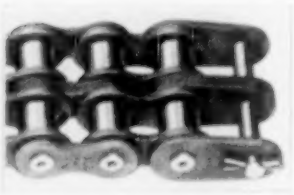
Representatives in Principal Cities of the United States

G. C. BREIDERT CO., Dept. I,
3129 San Fernando Road, Los Angeles 65, Calif.
Send name of nearest Breidert representative.
Send Free Engineering Data Book and other literature.
Name
Company
Street
City Zone State

▼ BREVITY—Identify by IEN - 5666 if you write the maker ▼

DRIVE . . Riveted roller chain in 5 ft. basic length, two drive pins

Source: BALDWIN-DUCKWORTH DIV.
358 Plainfield St., Springfield 2, Mass.



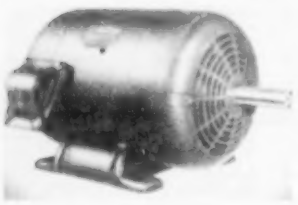
Type BA Assembly designates a new riveted roller chain that is supplied in 5-ft. basic length, with a drive pin connector at the 2½ mark and at the end of the 5-ft. length; standard Type A and Type B short shafts and clutch types with keyway slots offset 1½ in. on the 2½ in. pitch shafts at 3 inch, single and multiple spacing are available.

The riveted construction, with no removal of the connecting links, [illegible] connecting links with their pins that [illegible] and that are prevented from coming out by a cotter pin provided for connecting and also for length adjustment, when this is required. The side plates of the connecting links are of a different shape than the standard riveted links to assist in securing them to the [illegible].

▼ BREVITY—Identify by IEN - 5667 if you write the maker ▼

MOTOR . . Explosion proof squirrel cage design, rates 1 to 20 hp.

Source: WESTINGHOUSE ELECTRIC CORP.
306 Fourth Ave., P. O. Box 1017, Pittsburgh 30, Pa.



New design of the company's Type CSP motor features steel frame construction. Totally enclosed, fan-cooled, ball bearing. The motor is mounted for either horizontal or vertical operation. It can be installed in locations where Class I Group D explosive materials or atmospheres are present.

Sizes range from 1 to 20 hp., in frames 224 to 326. The line includes units for operation on 2- or 3-phase, 25- to 60-cycle, 208 to 550-volt service. Overall length is 10¾ to 27⅝ inches. Base to shaft center is 5⅝ to 9 inches. Bulletin 5667-C-50, 12 pages, contains illustrated detail data.

▼ BREVITY—Identify by IEN - 5668 if you write the maker ▼

STEEL . . Booklet on tin plate covers manufacture, grades, uses, specifications

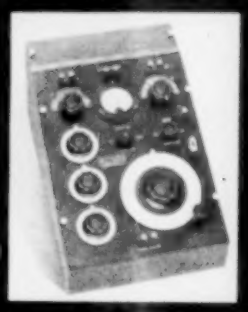
Tinplate Products Corp.
17 Broadway, Greenville, Pa. Send Book D-53-Y

"Tin Plate" [illegible] 24-page pocket booklet, prepared primarily for [illegible] engineers to promote engineered tinplate [illegible] the [illegible] uses, [illegible] and [illegible] from pricing and [illegible] standpoint, and [illegible] how to order.

All Makers of These And All Other Products Are Listed in THOMAS' REGISTER . . . Descriptions . . . Ratings . . . See Page 50

▼ BREVITY—Identify by IEN - 5669 if you write the maker ▼

To MEASURE



RESISTANCE • CAPACITANCE • INDUCTANCE

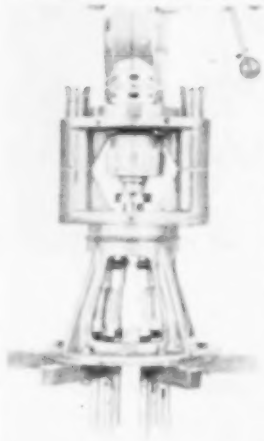
THIS completely self-contained, portable and accurate bridge is always set up to measure RESISTANCE from 1 millohm to 1 megohm; CAPACITANCE from 1 micromicrofarad to 100 microfarads and INDUCTANCE from 1 microhenry to 100 henrys. It includes a 1000-cycle tone source for a-c measurements and a zero-center galvanometer for d-c null detection. Its accuracy is more than sufficient for most routine measurements of these quantities. Its price, complete with self-contained batteries, is only $240.00. May we send you complete information?

GR **GENERAL RADIO CO.**

Cambridge 39, Massachusetts

NEW YORK ; CHICAGO LOS ANGELES

▼ BREVITY—Identify by IEN - 5670 if you write the maker ▼



NEW TAP or DRILL UNIT by THRIFTMASTER

Features . . .

1. Attaches to Any Drill Press
2. Automatic Reverse for Tapping
3. Built on Same Set-Up
4. Spindle Adjustable to Different Heights of Workpiece
5. Tapping and Drilling Production 2 to 5 Times That of Conventional Methods
6. Light in Weight, Only 50 to 75 Pounds—Can Be Set Up by One Operator

ALSO
COMPLETE LINE
ADJUSTABLE AND FIXED CENTER
DRILL HEADS

Subsidiary of Thompson Industries, Inc.

THRIFTMASTER PRODUCTS CORPORATION
1040 N. Plum St., Lancaster, Pa.
also Makers of
DORMAN AUTOMATIC REVERSE TAPPERS
4 Sizes • Friction & Positive Drives • Capacities ¼-28 to 2" in Steel

▼ BREVITY—Identify by IEN - 5671 if you write the maker ▼

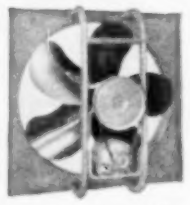
Over 150 different sizes and models!

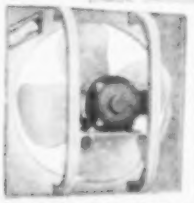
CHELSEA FANS

for every requirement!

Specifying Chelsea Fans for every type of job is a sure way to protect ventilation. There's a Chelsea model for every requirement, each type certified as to performance in accordance with the Code of Practice for Mfg. Fans.

Chelsea Industrial Type IND





All-Purpose Fan Type BB

Spin-It-Fans, 16 and 22

SEND FOR FREE CONTRACTOR'S KIT!

CHELSEA FAN & BLOWER CO., INC.
1206 GROVE ST., IRVINGTON, N. J.

▼ BREVITY—Identify by IEN - 5672 if you write the maker ▼

faster, finer finishing with **HYPREZ** DIAMOND COMPOUNDS

- Smooth, flawless surfaces
- Precise shapes and contours
- Proven time-saving techniques
- Quick economical results

SEE OUR INSTRUCTIVE EXHIBITS
A.S.T.E. PHILADELPHIA

Only HYPREZ Can Do a HYPREZ Job!

- 26 engineered grades
- From rough to mirror polish
- 2 unit sizes — 16 and 5 gram
- Sealed cartridge and applicator gun

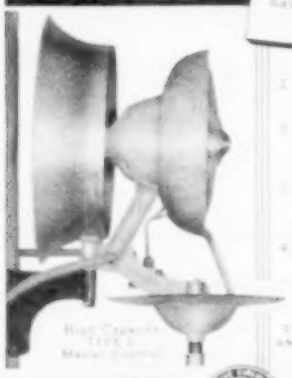
Write for free HYPREZ LAMINATED LAPPING STICK

HYPREZ DIVISION
ENGIS EQUIPMENT CO.

▼ Ref. (1)—Identify by IEN-5673 ▼

AUTOMATIC HUMIDITY CONTROL

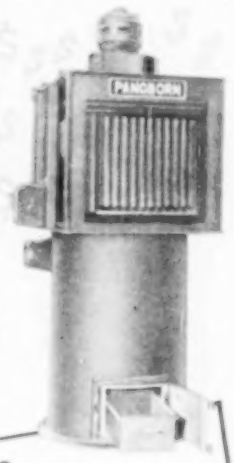
The Bahnson HUMIDIFIER



Bahnson System
AIR CONDITIONING ENGINEERS
THE BAHNSON CO. WINSTON-SALEM, N. C.

▼ Ref. (2)—Identify by IEN-5674 ▼

STOP DUST LOSSES



from PACKING
GRINDING • TRANSPORTING
BUFFING • SAWING • MIXING

Turn dust losses into profits with Pangborn Dust Control! If areas with heavy dust concentrations smother your plant, install Pangborn "CK" Unit Collectors at dust source. "CK" Collectors provide two stage separation, are available in capacities of 1000, 2000 and 3000 cu. ft. per minute. Have famous Pangborn non sag, cloth covered screens with motor driven shaker and come factory assembled, ready to operate.

Pangborn Dust Control units stop dust and save money! Reports to Pangborn's Engineers from plants of all types show Pangborn Dust Control cuts maintenance, boosts worker efficiency and recovers valuable materials!

Find out about your plant!

Whether your dust problem is large or small, Pangborn has the right Dust Control equipment for you. Bulletin with complete information, shown here is yours for the asking. Write for your free copy today to Pangborn Corporation, 701 Pangborn Boulevard, Hagerstown, Maryland.

STOP THE DUST HOG
from stealing profits with
Pangborn
DUST CONTROL

▼ Ref. (3)—Identify by IEN-5676 ▼

TIMING . . Electric time switch
for 24 hr. program control application

Source: LUMENITE ELECTRONIC CO.
405-9 S. Dearborn St., Chicago 5, Ill.

Model LW

▼ Ref. (4)—Identify by IEN-5677 ▼

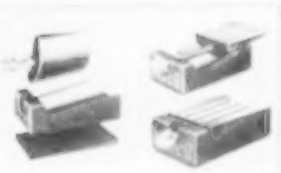
PLASTIC . . Laminated sheet
with metal inlay to prevent burning

Source: FARLEY & LOETSCHER MFG. CO.
West 2nd St., Dubuque, Iowa

▼ Ref. (5)—Identify by IEN-5678 ▼

JACK . . Screw operated unit
for machine leveling has vibration pad

Source: ENTERPRISE MACHINE PARTS CORP.
2729-33 Jerome Ave., Detroit 12, Mich.



▼ Ref. (6)—Identify by IEN-5679 ▼

FORCE AUTOMATIC NUMBERING MACHINES

COLUMBIA
3/8" figure numbering machine

Write for catalog "E" on complete line of automatic self-inking dating and numbering machines.

WM. A. FORCE AND COMPANY
INCORPORATED
64 WHITE STREET, NEW YORK 13, N. Y.

▼ Ref. (7)—Identify by IEN-5680 ▼

PUNCTURE TESTER
for quality-control
in box construction

it tests

The G-E puncture tester determines the resistance of boxes to puncture or other hazards, the most frequent cause of box damage.

Operation is based on tests of The American Society for Testing Materials and the Technical Association of the Pulp and Paper Industry.

Write for bulletin GEA-4003A. Apparatus Department, General Electric Company, Schenectady, New York.

GENERAL ELECTRIC

▼ Ref. (8)—Identify by IEN-5681 ▼

THIS BOOK CAN SAVE YOU MONEY ON
QUALITY NAME PLATES

Etched or lithographed on metal. Even quality name plates add sales appeal to your product—look better, longer. You can save money by using one of the 4000 shapes and sizes for which we have dies in stock. Ask us to quote on your name plate requirements. If you can use this book of stock shapes and sizes, write for it on your letterhead.

ETCHING COMPANY OF AMERICA
1520 Montana St., Chicago 14, Ill., Dept. F-6
SUBSIDIARY OF DODGE MANUFACTURING CORPORATION, MISHAWAKA, INDIANA

▼ Ref. (9)—Identify by IEN-5682 ▼

NEW! protection, durability and convenience

C/R
JAW-HEAD Rawhide HAMMER

CHICAGO Rawhide MFG. CO.
1293 ELSTON AVE., CHICAGO 22, ILL.

▼ REQUEST forwarded by IEN - 5683 ▼

PROVIDES

Valve Combinations

FOR 90% OF

INDUSTRIAL PIPING

Jenkins Fig. 106-A Series

• 10 valves with four bodies and a handful of interchangeable parts you can assemble 18 different valves of the 106-A "family". Meeting 80 — of all commercial piping needs, you can understand why the 106-A Series is so justly famous. The renewable disc, fixed in the slip-on recess disc holder, assures drop-tight closure and lasting economy under the toughest service conditions.

NEW 12 PAGE FOLDER NOW READY, describing the many easily assembled combinations of the 106-A "family" of Renewable Components. Use Bronze Valves and including a Disc Guide. Ask your Jenkins Distributor for a Jenkins Bros., 80 White St., New York 13, N. Y.

LOOK FOR THIS DIAMOND MARK

JENKINS VALVES

TYPES, SIZES, PRESSURES, METALS FOR EVERY NEED

▼ REQUEST forwarded by IEN - 5684 ▼

Don't Fish For Small Parts!

ANCHOR "*piano hinge*" PAN TYPE CONVEYOR

Don't fish for small parts. The Anchor "piano hinge" Pan Type Conveyors won't lose an item over 3/32" in size. Giving trouble-free operation for chips, scrap, food and in quench tanks. Built as a single unit in standard widths. Send for Bulletin 36-50.

OVERLOAD SAFETY CUT-OUT

• Sizes for all Conveyor systems. Shuts off electric motor instantly when conveyor or machine is overloaded — resets automatically. Write for Bulletin 44-51.

ANCHOR STEEL AND CONVEYOR CO.
6906 Kingsley Ave., Dearborn, Mich.

▼ REQUEST forwarded by IEN - 5685 ▼

HERE'S LOWEST COST WAY TO HANDLE SHOP LIQUIDS

PHILLIPS Quart and Gallon Stroke BARREL PUMPS

Phillips single stroke, hand operated Barrel Pumps are available individually or as complete Phillips Tank Units—Can be piped to withstand corrosive liquids. Save time, prevent waste—with low cost, dependable Phillips Barrel Pumps.

FOR COOLANTS—LUBRICANTS

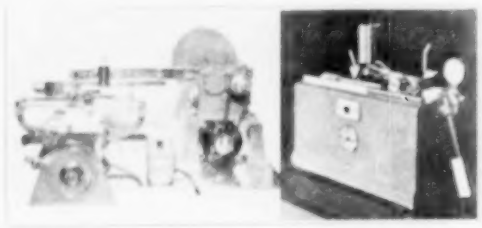
Write for prices and FREE catalog—today!

PHILLIPS PUMP & TANK CO.
5010 Bratheton Rd. Cincinnati 9, Ohio

▼ REQUEST forwarded by IEN - 5686 ▼

TESTING . . Equipment for paint reads scratch hardness and strip force

Source: HENRY A. GARDNER LABORATORY INC.
4720 Elm St., Bethesda 14, Md.



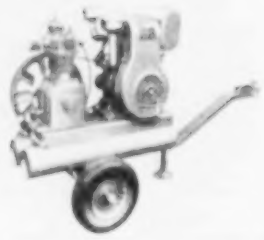
Area Microknife, for use with the Gardner and Hunter instruments for determining the exact area of test panels for paint. The knife applies a standard pattern to the test panel, then separates the film and adherent by a single stroke. Cutting is done with straight edge. The second instrument, Gardner Impact Tester, measures the force required to rupture paint film on test panel. Test panel is struck by a weighted dart with a hemispherical head.

List prices are $90.00 for the Microknife and $140.00 for the Impact Tester. Both instruments are

▼ REQUEST forwarded by IEN - 5687 ▼

COMPRESSOR . . Mobile, air cooled, three sizes, 12 to 34 cfm. at 100 lb.

Source: GARDNER-DENVER CO.
50 S. Front St., Quincy, Ill.



Air cooled

▼ REQUEST forwarded by IEN - 5688 ▼

THREADING . . Suggestions on design of threaded parts by makes of die heads

Cleveland Machine Screw Corp.
[illegible] Trumbull St., New Haven 10, Conn.

"Cost Reducing Suggestions" [illegible] a simplification of threading [illegible] a shoulder, the [illegible] [illegible] a [illegible] width of [illegible] as a [illegible] part [illegible] specific suggestions on threaded parts design.

All Makers of These And All Other Products Are Listed in THOMAS' REGISTER — Descriptions — Ratings — See Page 30

▼ REQUEST forwarded by IEN - 5689 ▼

FABREEKA

FOR IMPACT SHOCK, VIBRATION, AND NOISE

▼ REQUEST forwarded by IEN - 5690 ▼

Corrosion Protection for All Metal Surfaces

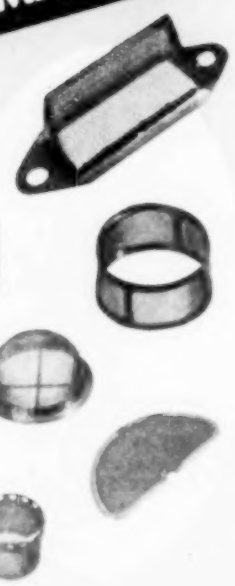
Hysol 4000 Coatings

houghton laboratories, inc.

- Resistant to Salt Water and practically all chemicals.
- Applied by brush, roll, spray or dip method.
- Finish coat in eight colors.

▼ REQUEST forwarded by IEN - 5691 ▼

You SPECIFY IT We MAKE IT



Newark Fabricated Wire Cloth Parts

Have you a design or production problem involving parts fabricated from woven wire cloth? If you do, why not allow us to be your manufacturing division for such parts. We have a large department specializing in the fabrication and assembly of wire cloth parts in production quantities ... we are equipped to manufacture everything from ventilating screens to fuel pump strainers.

We weave the wire cloth and do all the necessary cutting, forming, welding, soldering, cleaning, bending, edging and fitting. You get your parts complete, ready for quick assembly.

May we quote on your requirements?

NEWARK for ACCURACY

Newark Wire Cloth COMPANY

351 VERONA AVENUE • NEWARK 4, NEW JERSEY

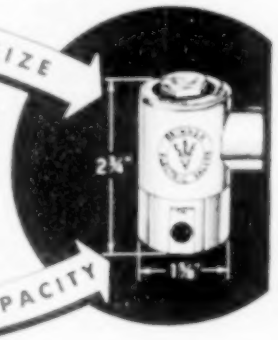
REFER TO INDUSTRIAL EQUIPMENT NEWS IN YOUR INQUIRIES TO MANUFACTURERS SO THEY CAN SEND SPECIFIC INFORMATION

▼ SKINNER-Indexed to IEN-5693 ▼

SMALL IN SIZE

Solenoid STAINLESS STEEL **Valves**

LARGE IN CAPACITY



THREE WAY-Two Position Normally Closed-Normally Open-Directional Flow
TWO WAY-Normally Closed TWO WAY-Normally Open

Skinner Solenoid Valves are extremely compact yet have unusual capacity—a great asset to designers looking for positive, accurate, long-lived controls for liquid and gaseous media. Available in standard pressure range of 5 to 250 p.s.i. and special from 5 to 850 p.s.i. Impregnated coils withstand moisture. Soft insert seats prevent leakage. Spring loaded for positive action. Usable in any position. Power consumption of 10 watts max. Pipe connections available to your specifications.

Write for Bulletin No. 491

Skinner ELECTRIC VALVE DIV.
THE SKINNER CHUCK COMPANY
134 Belden Ave., Norwalk, Conn.

▼ IEN-5694 ▼

FISHER *Gram-atic* **BALANCE**

A NEW, DIRECT-READING ANALYTICAL INSTRUMENT

- Fast weighing (20 seconds)
- No weights to handle
- Room under constant load
- One-dial reading
- Constant sensitivity
- Completely automatic servo
- 100 milligrams

Weighs to ... Weighs under ... Weighs over ... Weighs ... each

Write for Bulletin 15

Manufacturers for Laboratory Apothecaries

FISHER SCIENTIFIC CO. **EIMER AND AMEND**

▼ IEN-5695 ▼

FREE! FLOOR-CARE BOOKLET

MASURY-YOUNG COMPANY
76 ROLAND STREET, DEPT. C
BOSTON 25, MASSACHUSETTS

Please send me my FREE FLOOR-CARE BOOKLET

NAME

STREET

CITY ZONE STATE

▼ IEN-5696 ▼

SWITCH . . Precision snap acting with actuators for specified purposes

Source: UNIMAX SWITCH DIV.
460 W. 34th St., 15th Floor, New York 1, N. Y.

Illustrated ...

Metal housing ...

Interlock ...

The two assemblies ...

The float type ...

Catalog 56 ...

All Makers of Valves and All Other Products Are Listed in THOMAS' REGISTER — Descriptions — Ratings — See Page 56

▼ IEN-5697 ▼

TESTING . . Float operated unit reads specific gravity, also controls

Source: FISCHER & PORTER CO.
76 County Line Road, Hatboro, Pa.

Illustrated ...

▼ IEN-5698 ▼

PUT ON IN NO TIME . . . STAY ON FOR ALL TIME—

Electroline WIRE ROPE FITTINGS *minimize re-roping!*

These are outstanding advantages of Electroline fittings. Shorter installation time—no heat, acids or dangerous molten metal is required—unskilled labor, using ordinary mechanic's tools, make connections in a matter of minutes. And, these permanent wire-rope fittings prolong the life of rope by damping vibration and overcoming rope fatigue at entrance to fittings—can be reclaimed and used over and over again.

Illustrated, pocket-size Catalog fully describes all advantages of Electroline wire rope fittings . . . send for your copy, today.

Electroline Company
4121 SOUTH LA SALLE STREET
CHICAGO 9, ILLINOIS

▼ IEN-5699 ▼

THIS SAFE LUBRICANT PREVENTS SCORING

use CMD *Anti-Scoring* LUBRICANT

MAIL COUPON FOR FREE SAMPLE

CHEMICAL MANUFACTURING & DISTRIBUTING CO.
[illegible] Ave. and 26th St., Chicago 16, Ill.

Please send me a free sample of CMD Anti-Scoring Lubricant. Please tell me where I can buy it in my city.

NAME

FIRM NAME

ADDRESS

▼ IEN-5700 ▼

Today it's **Roebling!**

FOR COLD ROLLED SPRING STEEL

IT'S BEEN PROVED in plants everywhere . . . that Roebling Cold Rolled Spring Steel saves preparation time on machines, cuts down machine stoppages and rejects. And *this* is natural! Every inch of Roebling Spring Steel is identical in gauge, and finish . . . meets your specifications with absolute uniformity.

Roebling Cold Rolled Spring Steel is available annealed, hard rolled untempered, scaleless tempered, tempered and polished, sulfur bright, straight or kinked.

Have your Roebling Field Man help you choose the cold rolled spring steel—or round, flat or shaped wire—that will improve your product and your production. John A. Roebling's Sons Company, Trenton 2, New Jersey.

ROEBLING
A CENTURY OF CONFIDENCE

▼ IEN-5701 ▼

ARO ELECTRODE DRESSER *does job 5 times faster!*

This new unit is light in weight, powerful, portable . . . and how it shapes copper electrodes on spot welding machines without removing tips from machines. Cuts down cutting speed three ... [illegible] ... faster than former methods! Corrects for No. 1 and No. 2 dome tips electrodes and No. 1 and No. 2 pointed or tapered tips electrodes available from stock, other types on special order. Write for bulletin, see your nearest industrial distributor.

ARO
AIR TOOLS

The Aro Equipment Corporation, Bryan, Ohio
Aro of Canada, Ltd., Toronto, Ont.

REFER TO INDUSTRIAL EQUIPMENT NEWS IN YOUR INQUIRIES TO MANUFACTURERS SO THEY CAN SEND SPECIFIC INFORMATION

▼ BRIEFS—Circle IEN-5702 on coupon for more data ▼

NEW! low-cost, easy-to-install flange-mounted ball bearing unit

The Fafnir Flangette

incorporating Fafnir Wide Inner Ring Ball Bearing with Self-Locking Collar

Single low cost housing idea. Eliminates costly machining, simplifies maintenance. Pair of pressed steel flanges bolts to any part of machine, provides lightweight, compact, sturdy housing for standard Fafnir Wide Inner Ring Ball Bearing. Fafnir Mechanite Seals both sides. Self aligns at mounting. Write for illustrated folder. The Fafnir Bearing Company, New Britain, Connecticut

FAFNIR BALL BEARINGS
MOST COMPLETE LINE IN AMERICA

▼ BRIEFS—Circle IEN-5703 on coupon for more data ▼

DEPENDABLE

CONNECTIONS FOR COPPER TUBING

Whenever and wherever copper tubing makes connections quickly and dependably, specify Dresser "Type Solder" Fittings. Broadest choice of sizes and types for all commercial pneumatic jobs.

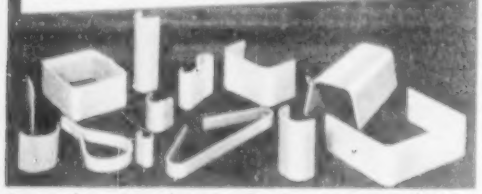
Correct time can be made to last for seconds. No expensive outages on manufacturing or home gas appliances. Fast, safe tube-to-tube union of copper and tubing and nothing else.

Dresser "Type Tube" Fittings are ideal for tubing connections on all types of appliances and are used by one of the largest manufacturers of home gas appliances. Economical* production economy features. Easy assembly. Complete line. Sizes 1/4" to 2" OD. Write for Catalog 5100. Dresser Manufacturing Division, Bradford, Pa. Export Office: 60 East 42nd St., New York 17, N. Y. Canadian Office: Toronto, Ont.

DRESSER "COPR-TUBE" FITTINGS

▼ BRIEFS—Circle IEN-5704 on coupon for more data ▼

NEW *Ladon* Bending Machine Bends Wood Easily at Lower Cost



Amazing Variety of Shapes Produced in Revolutionary Way

FAST, SIMPLE OPERATION CUTS COSTS

- Low operating cost
- Simple operation
- Light weight, easily moved
- Compact, requires little floor space
- Quick, easy changeover

Midwest Machine Co.

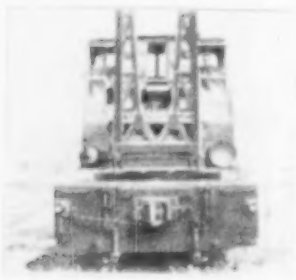
38 N. LACLEDE STATION RD.
ST. LOUIS 19, MO.

MANUFACTURERS OF BENDING MACHINES

▼ BRIEFS—Circle IEN-5705 on coupon for more data ▼

CRANE . . Dual control, diesel drive, locomotive type for railroad service

Source: INDUSTRIAL BROWNHOIST CORP. 135 Washington, Bay City, Mich.



Capacity

There are three

▼ BRIEFS—Circle IEN-5706 on coupon for more data ▼

CONTAINER . . Aluminum drum holds 55 gallons, weighs 43 pounds

Source: KAISER ALUMINUM & CHEMICAL SALES INC. 1922-26 Broadway, Oakland 12, Calif.

Model AH1

Model AH2

▼ BRIEFS—Circle IEN-5707 on coupon for more data ▼

WATER TREATING . . Flow diagrams in new booklet show working of hot process softeners

Reasons

All Makers of Items And All Other Products Are Listed In THOMAS REGISTER — Descriptions — Ratings — See Page 10

▼ BRIEFS—Circle IEN-5708 on coupon for more data ▼

Engineered to *Your* needs

COWLES *Ultra-Fast* DISSOLVER

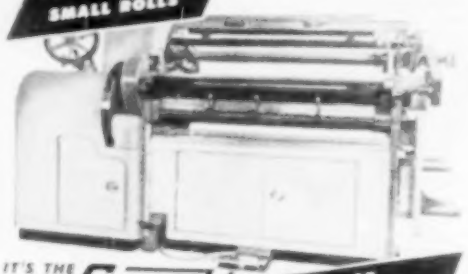
2 to 20 TIMES FASTER Than Conventional Mixers

LET US DEMONSTRATE

The Cowles Company
INCORPORATED
116 TRACKSIDE, CAYUGA, N. Y.
Associates: Alexander Pirnie, Ltd., Ottawa, Ont.

▼ BRIEFS—Circle IEN-5709 on coupon for more data ▼

FOR TOP QUALITY SMALL ROLLS



IT'S THE Camachine Rollster

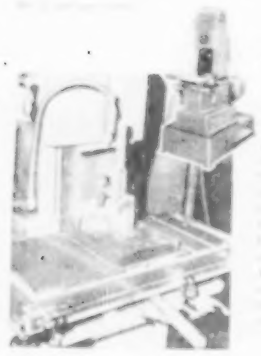
A tremendous hit among paper converters and paper goods manufacturers, the new *Rollster* now fully in becomes the most popular small roll slitter-rewinder ever built by Cameron. Precise pneumatic slitter arms, which eliminate the need for time separate cutter adjustments, the labor saving motor-driven ruling roll lift, and the universal operator-automatic stop for measuring the length of strip, are only a few of the outstanding features of this great new *Camachine*. You are invited to request complete information.

CAMERON MACHINE COMPANY
61 POPLAR STREET - BROOKLYN 2, N. Y.

▼ BRIEFS—Circle IEN-5710 on coupon for more data ▼

PORTER-CABLE
ABRASIVE BELT MACHINING

Does More Surfacing Jobs *Faster* and *Better*



AUTOMATIC FEED

Already Saved Over Four Times the Cost of the Original Machine

CONTOUR GRINDING

FINAL FINISH

PLATEN OR FREE BELT

PORTER-CABLE Machine Co.
3606 N. SALINA ST., SYRACUSE 5, N. Y.
Manufacturers of SPEEDMATIC and GUILD Electric Tools
In Canada Write: Strongridge, Ltd., St. Catharines, Ont.

▼ IEN-5712 ▼

Strong WICKWIRE ROPE A CF&I PRODUCT

. . . TO LICK TOUGH JOBS

Wickwire Rope is built for safety, performance, long wear and heavy duty. Available in a complete range of sizes and constructions . . . regular lay and WISSCOLAY Preformed.

Write now for your free copy of "Know Your Ropes." Contains 52 pages of suggestions on selection, application and usage of Wire Rope. Write to the Wire Rope Sales Office, Wickwire Spencer Steel, Palmer, Mass.

WICKWIRE ROPE

PRODUCT OF WICKWIRE SPENCER STEEL DIVISION THE COLORADO FUEL & IRON CORP.

Wire Rope Sales Office & Plant — Executive Office —

BRANCHES & DISTRIBUTORS IN KEY CITIES THE WORLD OVER

U. S. SUBSIDIARIES

▼ IEN-5713 ▼

Salvage

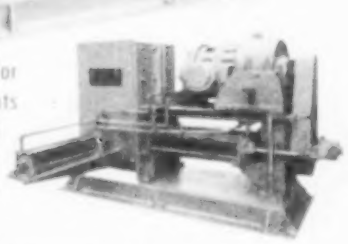
ALUMINUM · STEEL
BRASS · COPPER
LEAD or WIRE

Faster, More Economically

The New

McLanahan SCRAP BUNDLER

Designed for use in plants of small or large capacity



If your metal scrap or wire is of a stringy nature, you need the new McLanahan scrap bundler for use with your slitting equipment. This new machine, the result of constant research and product development, quickly and economically bundles metal scrap into cylinders approximately 16" to 18" in diameter. Easy to handle, ship, store or remelt.

Write Today for Descriptive Bulletin

McLANAHAN and STONE Corp.
Hollidaysburg, Pa. SINCE 1835

▼ IEN-5715 ▼

DRYING . . Dehumidifier unit blows room air through calcium chloride

Source: H. J. KAUFMAN CO.
13237 Rosslawn Ave., Detroit 4, Mich.

▼ IEN-5716 ▼

DRIVE . . Electronic equipment for variable speed to specification

Source: OLD & BARNES INC.
248-52 N. Vinedo Ave., Pasadena 8, Calif.

▼ IEN-5717 ▼

CALCULATING . . Tabulated charts for payrolls involving tax deductions

Source: DELBRIDGE CALCULATING SYSTEMS INC.
2500-04 Sutton Ave., St. Louis 17, Mo.

▼ IEN-5718 ▼

FOR THESE *Extras*

LONGER SERVICE
LESS MAINTENANCE
HIGHER PERFORMANCE

Use STAINLESS STEEL
FLOATS

YOU can solve unusual and tough float problems by discussing them with Precision Steel Floats from Chicago Float Works. You get longer service with less maintenance because the floats don't corrode, rust or pit, and withstand high temperatures and pressures. Extreme strength insures them against collapsing and their smooth, corrosion resistant surface is proof against sticking. Precision accuracy and workmanship. Send us your specifications. Inquiry will get quick attention. Don't wait. Write today.

WRITE FOR FREE CATALOG

CHICAGO FLOAT WORKS, INC.
2326 S. Western Ave., Chicago 8, Illinois

▼ IEN-5719 ▼

Pressure Regulator
FOR STEAM OR AIR

FULTON SYLPHON
DIVISION

▼ IEN-5720 ▼

BLENDING AND SORTING WITH VACUUM

This Spencer Vacuum Producer is located between two huge storage tanks on the roof of a large chemical plant. Dried plastic granules are picked up from the trays with a Spencer "Gulper" tool as they come from the ovens. One tray containing 10 pounds of material is emptied in one minute. The plastic is then conveyed by vacuum to the roof, 35 feet above and is separated by the Spencer Centrifugal Separator and then dropped down over vibrating screens.

150 USES FOR VACUUM... ASK FOR BULLETIN
THE SPENCER TURBINE COMPANY • HARTFORD 6, CONNECTICUT

SPENCER

▼ IEN-5721 ▼

TEMPILSTIKS®

The amazing Crayons that tell temperatures

in
WELDING
FLAME CUTTING
TEMPERING
FORGING
CASTING
MOLDING
DRAWING
STRAIGHTENING
HEAT TREATING
IN GENERAL

$2 each

FREE — Tempil "Basic Guide to Ferrous Metallurgy"

NAME
COMPANY
ADDRESS

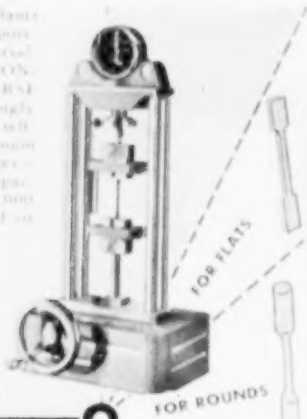
IEN-5722

"LITTLE GIANT" SERIES OF 3 Milwaukee ½" ELECTRIC DRILLS

BF-312	Maintenance Man's Favorite	$ 39.50
S-412	for Masonry and Concrete	44.50
S-212	for Tile and Ceramics	49.50

MILWAUKEE ELECTRIC TOOL CORPORATION
5360 West State Street • Milwaukee 8, Wisconsin

IEN-5723



DILLON Universal TESTER

W. C. DILLON & CO., INC

IEN-5725

SHEAR . . Hand slotting machine
cuts inside patterns in steel to 16 ga.

Source: BEVERLY SHEAR CO.
3001-3 W. 111th St., Chicago 43, Ill.

IEN-5726

WINCH . . Capstan type puller
for railroad yards and shipping docks

Source: SILENT HOIST & CRANE CO.
842 63rd St., Brooklyn 20, N. Y.

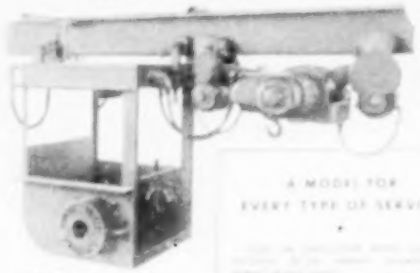
IEN-5727

FASTENINGS . . Suggestions on design
in booklet on cold-headed metal fastenings

IEN-5729

For "Long Haul" Economy

CAPACITY 500 POUNDS TO 20 TONS



HOISTING UNIT—

A MODEL FOR EVERY TYPE OF SERVICE

Shepard Niles CRANE & HOIST CORPORATION

456 SCHUYLER AVE. • MONTOUR FALLS, N. Y.

IEN-5730

STANDARDAIRE Precision Built AXIAL FLOW BLOWERS

Write for STANDARDAIRE BLOWER DIMENSIONAL DATA PUBLICATION No. 88

THE STANDARD STOKER CO. INC.

Standard Stoker SSC

NEW YORK • CHICAGO • ERIE • MONTREAL

IEN-5724

IT'S NO SECRET
why Fabricators Specify Superior Seamless Carbon Steel Tubing

HERE'S WHY!

Superior
THE BIG NAME IN SMALL TUBING

SUPERIOR TUBE COMPANY

IEN-5728

Simple as A B C

ROLL-A-REEL

WRITE TODAY FOR DETAILS

ROLL-A-REEL

327 WEST FOURTH STREET
CINCINNATI 2, OHIO

▼ REQUEST booklet by IEN-5732 ▼

BUILDING DOLLARS GO FARTHER

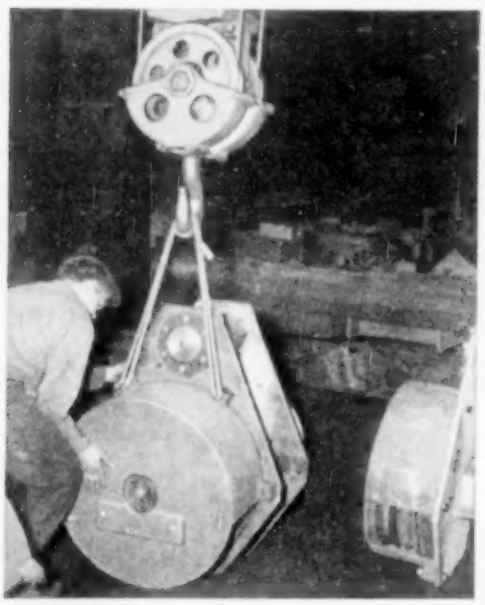
1. Quick, easy erection is assured with no need to hire skilled help. The simple 4-bolt construction goes together faster, cuts erection time 1/3 to 1/2.
2. You get Double-Duty service at "low cost" because Armco Buildings are fire resistant, lightning-strike proof, properly grounded. The galvanized steel can't warp or rot, won't support vermin, won't burn.
3. Ideal for air-conditioned or temperature-controlled interiors. Armco Buildings are "Extra Strength" and can easily be extended. Armco Steel engineers cooperate with you in the design to fit your location without loss of floor space.

WRITE FOR THE COMPLETE MONEY-SAVING STORY

ARMCO DRAINAGE & METAL PRODUCTS, INC.
1920 Curtis Street, Middletown, Ohio

ARMCO

▼ REQUEST booklet by IEN-5733 ▼



NOW... Wire Rope Slings with flexibility comparable to fiber rope

ACCO REGISTERED WIRE ROPE SLINGS rate high with Safety Engineers. However, operating men are often reluctant to adopt new equipment when it means a departure from long-established ways of handling standard jobs.

Maybe you don't have to depart from established custom to enjoy the advantages of ACCO Wire Rope Slings.

The picture above illustrates a case in point. The hitch is a typical fiber rope hitch. But the sling is not fiber rope. It is a Double ACCO-ize Cable Laid Grommet. It has all the safety, dependability and uniformity of an all-steel, machine-laid sling with flexibility comparable to fiber rope. The patented splice develops the full strength of the sling body—plus giving an armored section to use at point of greatest wear.

Like all ACCO Registered Wire Rope Slings, these grommets are rated as to capacity—proof tested to twice the rated capacity.

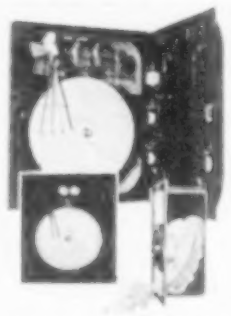
Here's a possible way to reduce material handling costs, a certain way to have new safety, flexibility and ease of accurate sling inspection. Write today for information about Double ACCO-ize Cable Laid Grommets.

ACCO
AMERICAN CHAIN & CABLE
WIRE ROPE SLING DEPARTMENT
Registered WIRE ROPE SLINGS

▼ REQUEST booklet by IEN-5735 ▼

GAGE . . Circular chart recorder for temperature or pressure readings

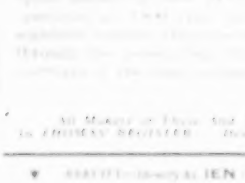
Source: PENN INDUSTRIAL INSTRUMENT CORP.
3114-18 N. 17th St., Philadelphia 32, Pa.



▼ REQUEST booklet by IEN-5736 ▼

PLASTIC MOLDING . . Granulator reduces thermoplastic scrap for remelt

Source: CUMBERLAND ENGINEERING CO.
P. O. Box 216-A, Providence 1, R. I.



▼ REQUEST booklet by IEN-5737 ▼

MULTISTAMP
STENCIL DUPLICATOR

THE ORIGINAL HAND STAMP STENCIL DUPLICATOR for

- Shipping Tag Addressing
- POSTCARD PRINTING
- BOX MARKING

At Your Office or Shipping Room Supply Dealer

▼ REQUEST booklet by IEN-5738 ▼

DO YOU KNOW?

—that a PILOT LIGHT CAN IMPROVE YOUR PRODUCT

. . . add attraction—safety—service?

Ask DIALCO

THIS MAY BE THE ONE

SAMPLES for design purpose NO CHARGE

NEW! Write for the HANDBOOK OF PILOT LIGHTS

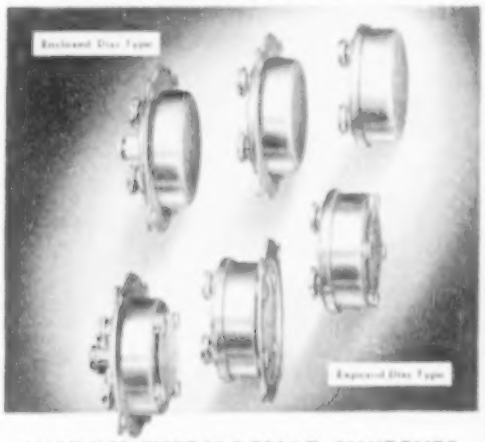
Write us on your design problems

Foremost Manufacturer of Pilot Lights

The DIAL LIGHT COMPANY of AMERICA

900 BROADWAY, NEW YORK 3, N. Y.

▼ REQUEST booklet by IEN-5739 ▼

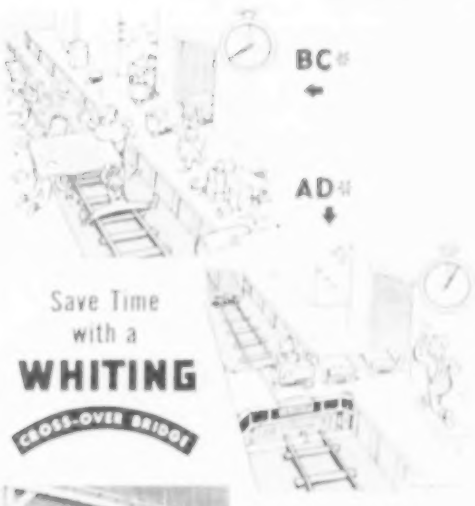


KLIXON THERMOSNAP SWITCHES

Provide Accurate Temperature Control

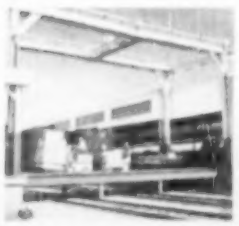
KLIXON
SPENCER THERMOSTAT

▼ REQUEST booklet by IEN-5740 ▼



Save Time with a **WHITING** CROSS-OVER BRIDGE

Before Cross Over Bridge
After Date of Installation



▼ REFER TO IEN-5741 ▼

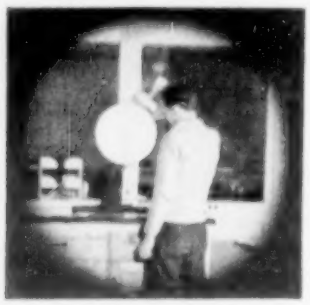
BEND TOP
STEEL-BOUND
SKID PLATFORMS

BUILT TO LAST A LIFETIME

500 LB. LOAD UP TO 10 TONS

THE LANHAM COMPANY
1405 S. 12th St., Louisville, Kentucky

▼ REFER TO IEN-5742 ▼



National's Continuous Research
—the answer to your
Improved Profitable Products

NATIONAL VULCANIZED FIBRE

PHENOLITE Laminated PLASTIC

NATIONAL VULCANIZED FIBRE CO.

▼ REFER TO IEN-5743 ▼

30% of a Product's Cost is often spent for handling material

HI-CARBON TRACK I

INDUSTRIAL MONORAIL and CRANES
may be your solution

- Industrial Monorail Track is rolled of high carbon manganese steel in standard I beam shapes.
- Tapered treads help center the load to reduce flange friction and wear.
- Increasing track flange thickness at web of the track gives added strength where flange bending movement is greatest.

INDUSTRIAL EQUIPMENT CO.
321 NORTH ADA STREET CHICAGO 7, ILLINOIS

▼ REFER TO IEN-5744 ▼

GAGE . . Pointer type level unit has magnet equipped aluminum frame

Source: BUCKEYE PLASTIC CORP.
1218-22 Huron Road, Cleveland 15, Ohio

Magna-Level reads inches or mm. and gage rests with flat base or on a vertical surface when a machine is reading the relationship of two surfaces between vertical and horizontal or in locating perpendicular to obtain a desired relationship. The locating surface is supplied by either permanent magnets built into the aluminum frame.

Readings are made on the principle of a pivot-bearing weighted pointer and a graduated dial inside of perspex cover. The dial is graduated in inches and .001 deg. in the four quadrants of a complete circle. Increments are .0 deg. 5 inches. Weight is 10 ounces. Size 4½ x 4½".

▼ REFER TO IEN-5745 ▼

TESTING . . Electronic instrument detects and localizes noise, vibration

Source: COMO-TEX CO.
126-30 W. Lake St., Chicago 1, Ill.

Sound-Probe is a new electronic instrument that "sees" by sound waves. Unit is designed for a quality control inspector to operate with a headset instead of eyes. The instrument was developed originally to pinpoint leaks in pressurized plastic bottles by immersing them in water and listening for escaping air bubbles. Unit is portable and operates on batteries.

List price is $200.00. Typical applications include search for loose wire in electronic assemblies, checking solderability of joints, locating cracks in castings, finding defective bearings, etc. Unit is sufficiently sensitive to detect the presence of a bit of dust in a ball bearing. Kit for all of these tests is furnished with the instrument.

▼ REFER TO IEN-5746 ▼

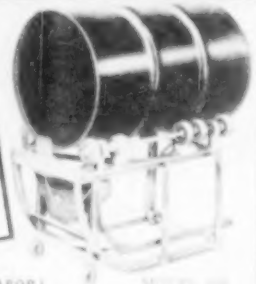
ENGINEERING Book on structures prints technical papers from a British symposium

"Engineering Structures"

▼ REFER TO IEN-5747 ▼

The Portable
MORSE ROTATOR

THE NEWEST ADDITION TO 25 YEARS OF SUCCESSFUL MANUFACTURING EXPERIENCE



SAVES TIME! SAVES LABOR!
SAFELY ROTATES UP TO 500 LBS. AT 10, 20 OR 40 RPM

MORSE MANUFACTURING CO. INC.
133 Dickerson Street Syracuse 2, N. Y.

▼ REFER TO IEN-5748 ▼

✓ Discs *Faster*
✓ Polishes *Better*
✓ Handles *Easier*

Mall
FLEXIBLE SHAFT GRINDER

Whether the job is grinding, Wire Brushing, Sanding or Polishing . . a Mall Flexible Shaft Grinder will do it faster and easier. With motor mounted on a rolling pedestal the operator has greater freedom of movement, much less weight to carry compared to tool with built-in motor. Fitting, cutting saves has extra copper and iron to prevent "hotbearing."

32 Factory-Owned Service Stations from Coast to Coast give quick, dependable repair service. Over 1000 Mall Portable Power Tools for a million jobs. A dealer in any town can supply you.

See your Mall Dealer TODAY or write for FREE catalog "Mall Flexible Shaft Grinder"

MALL TOOL COMPANY
7782 South Chicago Ave. Chicago 19, Ill.

▼ REFER TO IEN-5749 ▼

BETTER DRAWING PRINTING

Test AGEPROOF and prove to yourself it can't be beat for

pen or pencil
erasing
redrawing
transparency
reproduction
permanence

Ageproof VELLUM

Tracings on AGEPROOF VELLUM will never turn yellow, become brittle, or lose their super-translucency, because AGEPROOF VELLUM contains no wax, no oil to grease to deteriorate. AGEPROOF VELLUM is fully plasticized, with the plasticizing agent permeating every fibre. That's why you can repeatedly erase on AGEPROOF VELLUM without troublesome ghosts in prints, and redraw without feathered lines if you are using ink. AGEPROOF is available in three different weights in either frost-white or eye-easing blue tint.

EUGENE DIETZGEN CO. • Chicago • New York • San Francisco
New Orleans • Los Angeles • Pittsburgh • Washington
Philadelphia • Milwaukee. Dealers in All Principal Cities.

FREE SAMPLES

DIETZGEN
DRAFTING, SURVEYING & PRINT-MAKING MATERIALS, INSTRUMENTS & EQUIPMENT

▼ ... IEN-5751 ... ▼

ERTEL CYLINDER TYPE
Positive Seal
DISK FILTER

1. FILTERING ELEMENTS are independently tightened to provide positive seal.

2. OUTER CYLINDER is closed by separate handwheel to prevent drippage or evaporation.

ERTEL ENGINEERING
CORPORATION
KINGSTON NEW YORK

ASBESTOS FILTER SHEETS • ASBESTOS SHEET FILTERS
CYLINDER TYPE DISC FILTERS • PENDOGEN FILTERS
VACUUM BOTTLE FILLERS • PUMPS • MIXERS • CAPPERS

▼ ... IEN-5752 ... ▼

HIGH VOLUME
Air Delivery
WHERE YOU WANT IT—
Without Fans or Motors!

THE M·S·A-LAMB
AIR-MOVER

LIGHT, PORTABLE
COMPLETELY SAFE IN
DUSTY, GASSY LOCATIONS

- Low in First Cost
- No Upkeep Cost
- No Moving Parts

MINE SAFETY APPLIANCES COMPANY
Braddock, Thomas and Meade Streets · Pittsburgh 8, Pa.
At Your Service: 54 BRANCH OFFICES IN THE UNITED STATES AND CANADA

▼ ... IEN-5754 ... ▼

HANDLING . . Wire rope sling
in specified lengths and rope sizes

Source: PENNSYLVANIA WIRE ROPE CORP.
955-62 First St., Williamsport 10, Pa.

▼ ... IEN-5755 ... ▼

STRAPPING . . Reinforced paper tape
straps products for handling, shipping

Source: INDUSTRIAL TAPE CORP.
Highway One, New Brunswick, N. J.

Strength supplied
by glass threads

▼ ... IEN-5756 ... ▼

MARKING . . Roll type machine
for circular work in indexing table

Source: ACROMARK CO.
7 Morrell St., Elizabeth 3, N. J.

All Makers of Types And All Other Products Are Listed in THOMAS REGISTER ... Descriptions ... Ratings ... See Page 30

▼ ... IEN-5757 ... ▼

MELRATH GASKETS

GRAPHITED COMPRESSED ASBESTOS
SHEET PACKING and GASKETS

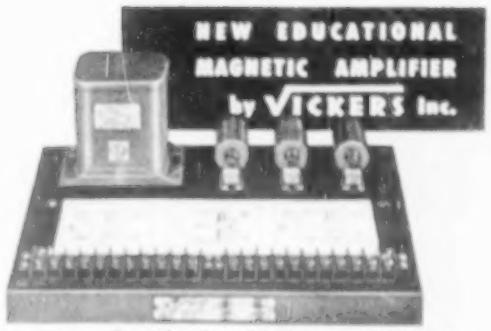
MELRATH No. 125 . . . a high quality long fiber material resistant to acids, oils, steam, chemicals, etc. Proven for over 30 years.

There's a Melrath Gasket
for Every Purpose!

MELRATH SUPPLY & GASKET CO., INC.
3501 MEMPHIS ST., PHILADELPHIA 34, PA.

▼ ... IEN-5758 ... ▼

NEW EDUCATIONAL
MAGNETIC AMPLIFIER
by VICKERS Inc.



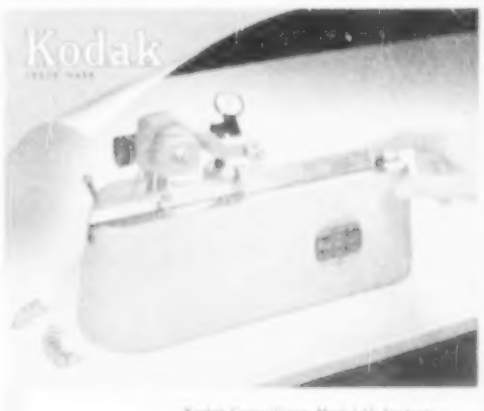
for School and Industrial Laboratories

- A unit designed for ... laboratory ... to help ... in ... of ... or ... control ... a wide range ... Ideal for ... of high gain ... without using ... tubes.
- All the basic ... plus ... controls ... be ... used ... operating ... with ... or ... control ... the ... power ... output.
- Magnetic ... Transformers, and Magnetic ... Design ... included with ... unit.

Write for information and price

VICKERS ELECTRIC DIVISION
1500 LOCUST STREET ... ST. LOUIS 3, MISSOURI

▼ ... IEN-5759 ... ▼



Kodak Conju-Gage, Model 11, for testing gears up to 11½ inch pitch diameter.

Test gears in *action*

Test your production gears while rotating ... run them against the Kodak Conju-Gage Worm Segment. For the composite check of gears, it's more accurate, less expensive, and more versatile than a concrete master gear for the same work. It's much easier and far faster than older methods using measuring wires.

With a Kodak Conju-Gage and a single Worm Segment for a given normal pitch and pressure angle, you can check ... gears of ... gears ... with any desired amount of backlash ... and you can angle ... of either hand. The Segment ... checks the runout, lead, profile ... tooth thickness variations, gross cumulative errors and lead error so ... be of great value in ... operations.

Contrary to most ... conventional types of double meshing ... the Kodak Conju-Gage ... can tell ... PASSING EVERY RIGHT GEAR ... REJECTING EVERY WRONG GEAR.

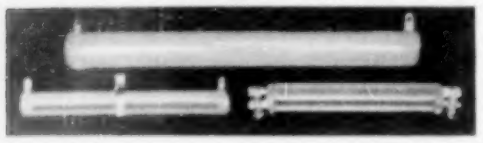
For more information on this Kodak Conju-Gage and other models for testing gears up to ... inch pitch diameter, write:

EASTMAN KODAK COMPANY
Industrial Optical Sales Division
Rochester 4, N. Y.

Kodak
CONJU-GAGE

▼ REQUEST (Identify by IEN-5761 if you write the maker) ▼

HARDWICK, HINDLE'S
NEW NATIONAL RESISTORS
Completely Sealed . Completely Satisfactory



✓ Unaffected by moisture, humidity, temperature and shock

✓ Are individually made to R-E-T specifications originally developed in close cooperation with leading manufacturers of radio equipment

✓ Are tested after manufacture and again after being installed in their circuits by user to assure highest standards of performance

✓ All parts assembled, processed by a non-corrosive bonding

and . . .

✓ Are designed, engineered, manufactured, distributed and given premium production throughout the most rugged service ranges for wide variations of humidity, salt water and ambient atmospheric conditions. And by withstanding higher heat than these resistors afford a greater safety factor.

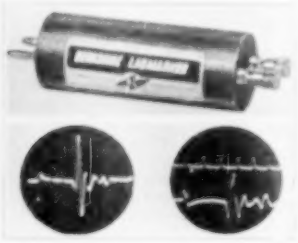
The Hard, the Intrim and the Set types are available for ordering and manufactured in accordance with JAN-R-93A specifications. Write today for new bulletin.

HARDWICK, HINDLE, INC.
Subsidiary of
THE NATIONAL LOCK WASHER COMPANY
60 HERMON ST. NEWARK 5, N. J. U.S.A.

▼ REQUEST (Identify by IEN-5764 if you write the maker) ▼

TESTING . . Wave shaping device produces timing trace on oscilloscope

Source: BERKSHIRE LABORATORIES
P. O. Box 70-F, Concord, Mass.



Laboratory

Both circuits

▼ REQUEST (Identify by IEN-5765 if you write the maker) ▼

MOTOR CONTROL . . Circuit breaker with lever for motor starting service

Source: HEINEMANN ELECTRIC CO.
100 Plum St., Trenton 2, N. J.

New assembly

Rating

▼ REQUEST (Identify by IEN-5766 if you write the maker) ▼

ADVERTISING — Ethical practice described in 180-page book by the Bureau

Fourth Edition

An Makers of Items And All Other Products Are Listed In THOMAS REGISTER — Descriptions — Ratings — See Page 30

▼ REQUEST (Identify by IEN-5768 if you write the maker) ▼

PRECISION CASTING FOR TOUGH JOBS!

- Virtually no machining required
- Ideal for small components of intricate shape and design
- Permits economical use of high melting point, non-machinable alloys

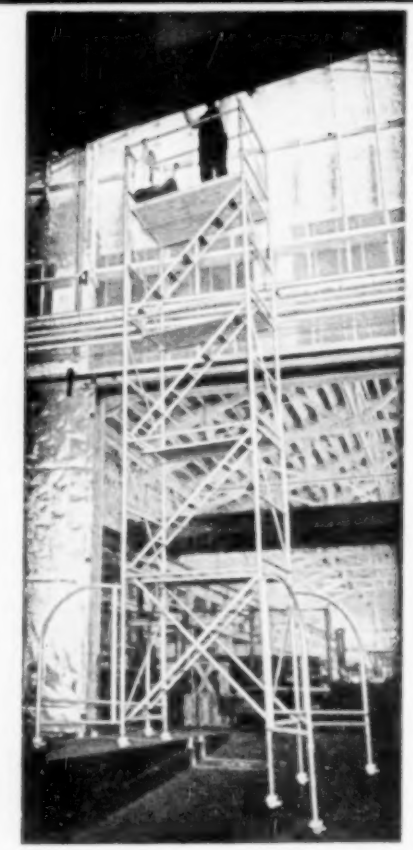
MICROCAST DIVISION
AUSTENAL LABORATORIES, INC.
224 E. 39th Street • New York 16, N. Y.
715 E. 69th Place • Chicago 37, Illinois

Send for free booklet

▼ REQUEST (Identify by IEN-5769 if you write the maker) ▼

Speed up overhead maintenance with Aluminum Alloy "UP-RIGHT" SCAFFOLDS

This mobile 30' unit was set up by 2 men in only 10 minutes

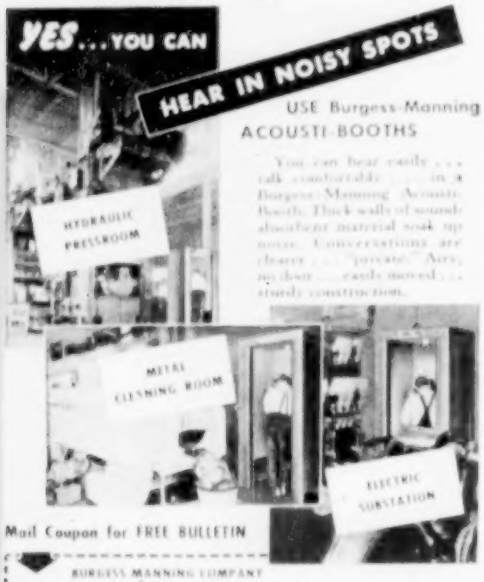


New labor-saving, cost-cutting advancement for work on walls, ceilings, mains, overhead machinery, ventilation systems, painting and sealing, installations. Rolls on casters with ease. Available in various number of 5 foot units, each instantly adjustable up to 30 feet. Each unit can be moved, the weight. Safety tread planked, completely within the structure. No wrenches, wing nuts, loose parts. Each section folds flat.

Write for Descriptive Circular

UP-RIGHT SCAFFOLDS
DEPT. 135 • 1013 PARDEE ST.
BERKELEY, CALIFORNIA
Offices in All Principal Cities

▼ REQUEST (Identify by IEN-5762 if you write the maker) ▼



USE Burgess-Manning ACOUSTI-BOOTHS

You can hear easily . . . talk comfortably . . . in a Burgess-Manning Acousti-Booth. Thick walls of sound-absorbent material soak up noise. Conversations are clearer . . . "private." Air, no dust . . . easily moved . . . sturdy construction.

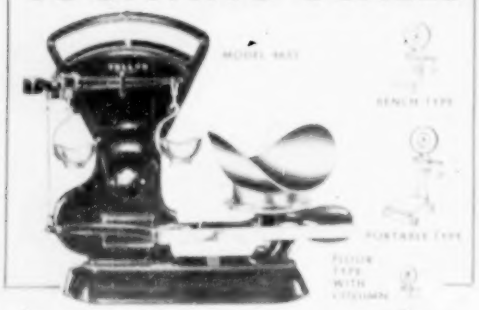
Mail Coupon for FREE BULLETIN

BURGESS MANNING COMPANY
743-A East Park Avenue, Libertyville, Illinois
Please send booklet describing Burgess-Manning Acousti-Booths

Name
Firm Name
Street-City

▼ REQUEST (Identify by IEN-5763 if you write the maker) ▼

Control Costs with
COUNTING SCALES



BENCH TYPE
PORTABLE TYPE
FLOOR TYPE WITH CYLINDER

TOLEDO
HEADQUARTERS FOR SCALES

▼ REQUEST (Identify by IEN-5767 if you write the maker) ▼

ISOMODE PADS!

THE MB MANUFACTURING COMPANY, INC.
1064 State St., New Haven 11, Conn.

IEN-5771

STURDY, CONVENIENT, LOW-COST

JIFFY *ALL METAL* CABINETS

FOR SMALL PARTS, DRILLS, TOOLS, CARBIDE TIPS AND MOUNTED POINTS

32 DRAWER UNIT • DIVIDES INTO 96 COMPARTMENTS

$8.95

POSTAGE PAID

64 DRAWER UNIT • DIVIDES INTO 192 COMPARTMENTS

$15.95

Rustproof Aluminum Drawers

APPROXIMATE SIZES
DRAWER 11¼" Deep 3¼" Wide 6" Long
32 DRAWER UNIT 6" Deep 13¼" Wide 15¼" High
64 DRAWER UNIT 6" Deep 25½" Wide 15¼" High

Complete set of Dividers and Index Cards supplied

Each welded steel cabinet holds these drawer quality, rustproof, blank duck steel, one-piece aluminum drawers in synthetic satin finish. The two multiple drawers easily unthread for convenient storage of small parts, drills, tools, carbide tips, mounted points or assembly bench work of such a size size. Order now for immediate delivery. (and check or money order or direct consumers shipped on receipt of purchase order).

KAYTEE PRODUCTS

DEPT. E - BOX 191 - CANTON, OHIO

IEN-5772

Here's the saw you'll see cutting costs!

New WALKER-TURNER 12" Tilting Arbor Saw

SOLD ONLY THROUGH AUTHORIZED DEALERS

KEARNEY & TRECKER MILWAUKEE

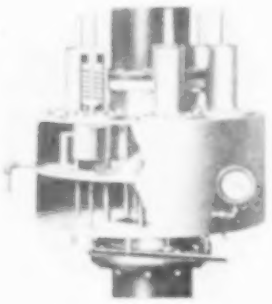
WALKER-TURNER DIVISION

PLAINFIELD, NEW JERSEY

IEN-5774

VALVE . . Pressure relief design limits steam pressure to heat, process

Source: KLIPPEL VALVES INC.
1002 Waller Ave., Hamilton, Ohio



IEN-5775

HEATING . . Flexible electric pad lies flat on floor to radiate warmth

Source: MANUFACTURERS ENGINEERS CO.
4103 S.E. 26th Ave., Portland 2, Ore.

IEN-5776

for GREATEST DEPENDABILITY and EFFICIENCY in metered pressure pumping of

SULPHURIC ACID

at all concentrations

- NO STUFFING BOX OR RUNNING SEAL
- POSITIVE DISPLACEMENT PISTON MEASUREMENT
- FLOW RATE ADJUSTABLE WHILE IN OPERATION
- MANUAL OR AUTOMATIC CONTROL

Lapp PULSAFEEDER

PISTON-DIAPHRAGM CHEMICAL PROPORTIONING PUMP

WRITE for Bulletin 262 with complete description and specifications

LAPP INSULATOR CO., INC. PROCESS EQUIPMENT DIVISION 741 MAPLE STREET, LE ROY, N.Y.

IEN-5777

LOAD CENTER POWER LOCATION

SAVES YOU MONEY

ALLIS-CHALMERS
MILWAUKEE, WIS.

ALLIS-CHALMERS

IEN-5778

20 FOOT BARS
Stored and Handled Efficiently

GET THIS BOOK!

CLEVELAND TRAMRAIL DIVISION
THE CLEVELAND CRANE & ENGINEERING CO.
4421 East 285th St., Wickliffe, O.

CLEVELAND TRAMRAIL

IEN-5779

Amazing New ¾ Ton HOIST and PULLER!

BLACKBURN *Jiffy Lift*

30 DAY FREE TRIAL

Hundreds of Uses

MAIL COUPON TODAY

JASPER BLACKBURN PRODUCTS CORP.
First, Madison & Clinton Sts. St. Louis 6, Mo.

Send us full information about ¾ Ton Unit

Send us one ¾ Ton Unit for 30 Day FREE TRIAL

Your Name and Title

Firm

Address

City and State IEN

REFER TO INDUSTRIAL EQUIPMENT NEWS IN YOUR INQUIRIES TO MANUFACTURERS SO THEY CAN SEND SPECIFIC INFORMATION

▼ BRIEFITS—Identify by IEN - 5780 if you write the maker ▼

PREVENT BUNG DRIP

with BOWSER ROTARY HAND PUMPS

- STOP WASTE
- Avoid Slippery Floors
- Keep Storeroom Neat
- SAVE TIME!

NEW Perma-Free ACTION

BOWSER, INC., 1338 Creighton Ave., Fort Wayne 2, Ind.

LIQUID CONTROL SPECIALISTS SINCE 1885

▼ BRIEFITS—Identify by IEN - 5781 if you write the maker ▼

for close check on surface temperatures

Almor PYROCON

Wherever a close and frequent check on low surface temperatures must be maintained on machines and materials, you'll find the handy Portable Pyrocon a valuable instrument. It is unexcelled for fast, accurate temperature readings of any surface, flat or curved, stationary or revolving. It may be used with plastic materials, waxes, rubber, liquids, oil or grease, molten soft metals, etc. The rugged Pyrocon can bring laboratory accuracy to your temperature measurement—at low cost. Write today for details on wide selection of thermocouples and extension arms.

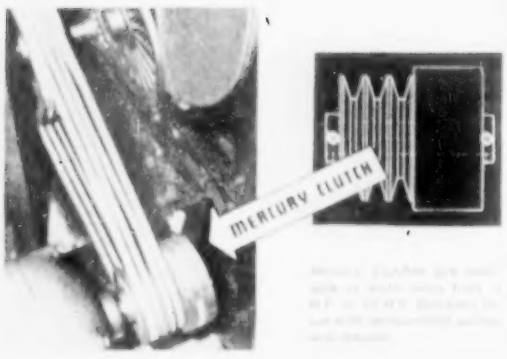
Illinois Testing Laboratories, Inc.
Room 517, 420 N. LaSalle St., Chicago 10, Ill.

Almor PRECISION INSTRUMENTS FOR EVERY INDUSTRY

▼ BRIEFITS—Identify by IEN - 5782 if you write the maker ▼

PUT A MERCURY CLUTCH ON THE JOB

TEXTILE MACHINERY POWERED BY ELECTRIC MOTORS gets off to a smooth, cushioned start when the motors are equipped with Mercury Automatic Clutches. By cushioning the start, a Mercury Automatic Clutch allows the motor to deliver its full torque to turn over the machine . . . permits the use of a general purpose motor instead of a more expensive high-torque type.



Write for Catalog 24P.E. giving full specifications and engineering data.

MERCURY CLUTCH DIVISION
AUTOMATIC STEEL PRODUCTS INC. • CANTON 6 • OHIO

▼ BRIEFITS—Identify by IEN - 5783 if you write the maker ▼

HEATING . . Electric-steam radiator, safe to use in explosive atmospheres

Source: BURNHAM CORP.
4 Main St., Irvington, N. Y.

New design of the company's electric-steam baseboard radiator enables quick, foolproof and courteous enclosure in vast assortment of wood and metal cabinets. Unit is said to be the only heating enough to operate on explosive atmospheres. The radiator is approved by Underwriters' Laboratories, Inc., for use in Class I, Group D, and Class II, Groups E and G atmospheres.

A Calrod [illegible] provides the heat under control of a thermostat to generate steam under 30 lb. pressure and to circulate against A safety valve will open in the event of over-pressure. The radiator is made in three sizes varying [illegible] of vaporizing. Width is 5 inches. Height is 20 inches. Length is 41 to 58 inches. The heating element, rated 1,000 to 3,000 watts, is available for operation on 110 or 220 volts ac. Each unit is supplied with a charge of water and [illegible] and [illegible].

▼ BRIEFITS—Identify by IEN - 5784 if you write the maker ▼

MOTOR . . Steel frame dc., sealed ball bearings, 1 to 30 hp.

Source: WESTINGHOUSE ELECTRIC CORP.
306 Fourth Ave., P. O. Box 1017, Pittsburgh 30, Pa.

Constant, adjustable or varying-speed applications can be made with this new line of dc units which the company has added to its Type SK line of Life-Line motors. The construction features steel housing and end frames, fan-type ventilated wound ball bearings that require no lubricating attention.

The assembly is in frame numbers 203 to 360. Duty can be intermittent or continuous. Windings are wound, compounded or series. Operation at 110 to 600 volts as specified.

▼ BRIEFITS—Identify by IEN - 5785 if you write the maker ▼

BRASS . . Cardboard slide calculator shows price per pound of five alloys in wire and strip

[illegible]

Desired size of [illegible] strip to be cut at one location is located and [illegible] Desired quantity is set in a second window. Price per pound is read at a third window against the gauge. A fourth window shows quantity extra figures. The calculator will be sent upon letterhead request to the company at the address above.

All Makers of These And All Other Products Are Listed In THOMAS' REGISTER — Descriptions — Ratings — See Page 10

▼ BRIEFITS—Identify by IEN - 5786 if you write the maker ▼

Drill Hardened Steels without Annealing—

With the new improved "HARDSTEEL" Drill, you can drill, ream, countersink or counterbore hardened steel without annealing, to almost any depth, at speeds and feeds approaching those used for soft steel. You can work with regular shop set-ups, machining costs and tool replacements drastically reduced.

"HARDSTEEL" Drills fit standard drill presses. Four lip, free cutting design. Only general supervision changes necessary. Advanced to give better finishing. And guaranteed to drill hardened steel as well as possible.

Write for a copy of the "HARDSTEEL" Operating Manual showing how "HARDSTEEL" drills are cutting costs in thousands of plants.

You Harden It—We'll Drill It—
With "HARDSTEEL"

BLACK DRILL COMPANY
Division Black Industries
1378 East 222nd St. • Cleveland 17, Ohio

Also makers of—BLACK DRILLING UNITS—AUTOMATIC SELF-CONTAINED—FOR COST-CUTTING PRODUCTION ON ALL MATERIALS. Write for information

▼ BRIEFITS—Identify by IEN - 5787 if you write the maker ▼

Rabbit skins aren't even in the running when compared with the fine soft resilience of Tuffle Protective Padding. That's why Tuffle—the remarkable resilient wood fiber material—is widely used where products must be protected from marring and heavy impact blows. But that's only ONE of the many uses for Tuffle. Tuffle provides superior cushioning for upholstered furniture and the production of homes and other buildings. It is highly efficient for thermal insulation and sound deadening. Obtainable in moisture resistant fire retardant and resilient forms. Tuffle boards cut to any size or shape. Get all the facts about Tuffle in Write us!

DEPT. 1240 FIRST NATIONAL BANK BLDG. ST. PAUL 1, MINNESOTA

▼ BRIEFITS—Identify by IEN - 5788 if you write the maker ▼

Eliminate errors in computing time with

CALCULAGRAPH

—AUTOMATICALLY FIGURES JOB TIME!

ACCURATELY COMPUTES AND PRINTS { STARTING TIME / FINISHING TIME / TOTAL TIME

HANDLES ANY NUMBER OF CARDS IN ANY SEQUENCE

One Calculagraph can figure and record the time for an entire shop or large production department. This precision-built instrument provides multiple recording on any number of cards regardless of sequence. Calculagraph publicizes lunch and other non-productive periods automatically and can even be set to compute overtime and wages, if desired, where one pay period is a factor.

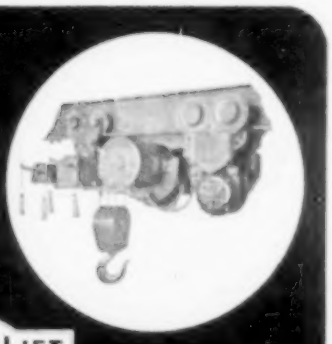
PRINTS ACCURATE RECORDS EASILY FILED FOR REFERENCE

Calculagraph is the most economical means of obtaining completely accurate job time for computing costs. Every thousand punched cards can be read for hourly reference when estimating on the shop's basis on time study. Now in use in thousands of plants and shops large and small. Call or write Dept. C for literature today!

CALCULAGRAPH COMPANY • INCORPORATED
HARRISON • NEW JERSEY

SINCE 1892—STANDARD EQUIPMENT IN THE TELEPHONE INDUSTRY THROUGHOUT THE WORLD

▼ REFER TO IEN-5790 ▼



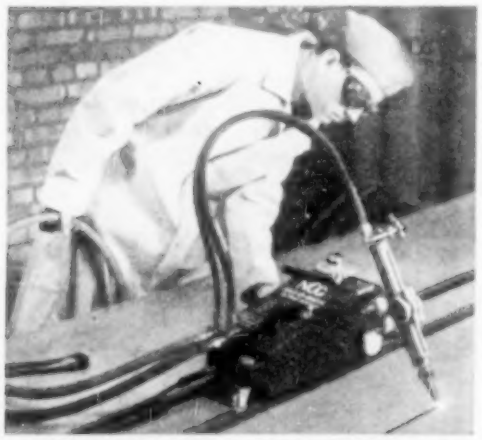
ELECTROLIFT *makes light work*

of materials-handling. One man merely presses a button to get this worm-drive electric hoist to lift loads — up to 6 tons — and move them to the desired location. ElectroLift operates quietly and with very little power. For complete information on models to meet your capacity, speed and plant layout needs, phone or write your nearby ElectroLift representative listed in the classified telephone directory. Or write to address below.

ELECTROLIFT, INC. 30 Church Street, New York 7, N. Y.

▼ REFER TO IEN-5791 ▼

FLAME-CUTTING
. . . EASIER, FASTER



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NCG's PORTABLE

Motor-Driven Cutting Machine

CUT-O-MATIC STANDARD UNIT

$185

NATIONAL CYLINDER GAS COMPANY

NCG

EVERYTHING FOR WELDING

▼ REFER TO IEN-5793 ▼

HANDLING . . Aluminum bins
for chemicals, flour, sugar, powders

Source: TOTE SYSTEM INC
702 S. Seventh, Beatrice, Nebr.

▼ REFER TO IEN-5794 ▼

SEALING . . Formed plastic packing
for service to 350 deg. F., 600 lb.

Source: RAYBESTOS-MANHATTAN INC
47 Thomas St., Manheim, Pa.

Bulletin A-941 presents details

▼ REFER TO IEN-5795 ▼

CONNECTOR . . Spring insert plastic
to make electric wiring connections

Source: IDEAL INDUSTRIES INC
1108 Park Ave., Sycamore, Ill.

Hi-Volt No. 83 connectors

The plastic shirt

All Makers of Items You All Other Products Are Listed In THOMAS' REGISTER — Descriptions — Ratings — See Page 50

▼ REFER TO IEN-5796 ▼

tempoint Dial Thermometer

Indicates up to 1000° F. FAST · ACCURATELY!

This precision bi-metal dial thermometer has been designed specifically for flue gas and exhaust gas temperature readings. It is equally well suited for all other applications requiring high temperature tests up to 1000° F. over an exceptionally wide range. It is outstanding for its fast response, permanency of calibration, and easy readability.

The three-inch diameter face with large numerals and clear graduations together with the red V-shaped pointer make the TEMPOINT exceptionally easy to read, at a distance and in dimly-lit locations. The stem is 9/16" O.D. and is available in 5½" or 9" free length. Write for descriptive Leaflet "80."

BACHARACH INDUSTRIAL INSTRUMENT CO.
7000 Bennett Street · Pittsburgh 8, Pa.

▼ REFER TO IEN-5797 ▼

$3500 annual savings from $10,000 investment in G-E Capacitors

GENERAL ELECTRIC

▼ REFER TO IEN-5798 ▼

No More Guessing . . . Accurate Torque Control

No More Guessing

P. A. STURTEVANT CO.
ADDISON QUALITY ILLINOIS

▼ REFER TO IEN-5799 ▼

Which slow speed do you need?

WITH THIS One AMERICAN REDUCTION DRIVE YOU CAN GET THEM All!

MAIL TODAY!

AMERICAN REDUCTION DRIVE

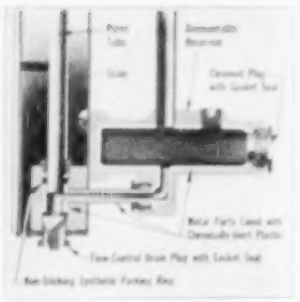
IEN-5800

STOP DUST IRRITATION
...with NEW Sensational
Flex-a-foam
FILTER MASK
Trial Sample $1.50
Write TODAY for Descriptive Circular
Here's dust protection your workers will welcome and WEAR
THE GOGGLE PARTS COMPANY
1468-70 W. 9th Street • Cleveland 13, Ohio

IEN-5803

GAGE . . U-tube manometer in 12 lengths with 12 to 100 in. scale

Source: KING ENGINEERING CORP., P. O. Box 100-A, Ann Arbor, Mich.



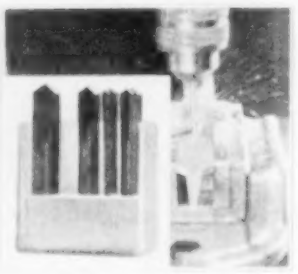
Bulletin M-101

IEN-5807

IEN-5804

DRILLING . . Solid carbide drill for metals testing to 66 Rockwell C

Source: FIRTH-STERLING STEEL & CARBIDE CO., 712-16 Fifth Ave., McKeesport, Pa.



IEN-5801

Your Shipping Room Costs May Be Much Too High

if you're not using Bostitch fastening equipment

ATTACH THIS COUPON TO YOUR LETTERHEAD

BOSTITCH, 462 Mechanic Street, Westerly, Rhode Island

BOSTITCH
fastens it better with wire

ALL TYPES OF MACHINES FOR APPLYING STAPLES
ALL TYPES OF STAPLES APPLIED BY MACHINES

IEN-5805

HEATING . . Rate your plant performance on fuel analysis chart of fuel consumption

IEN-5806

IEN-5808

YOUR BEST BET

to get simple, inexpensive speed control from *a-c power*

TRI CLAD
ACA MOTORS

IT RUNS ON A-C POWER!

YOU DIAL THE SPEED!

IT'S A REAL "PACKAGE" DRIVE!

WANT MORE INFORMATION?

Quick Facts
ABOUT GENERAL ELECTRIC ACA MOTORS

SPEED RANGE

HORSEPOWER

VOLTAGE

STARTING

SPEED REGULATION

The ACA motor is one of a complete line of General Electric adjustable-speed drives.

GENERAL ELECTRIC

IEN-5810

Check
Speed OF OPERATING
RPM or FPM EQUIPMENT
for Performance Efficiency
with a **JONES TACHOMETER**

Machinery speeds are the basis of production control. With JONES Portable or Fixed TACHOMETERS applied to your machinery, you can accurately control production time as well as the entire production line capacity by checking RPM of rotors, rollers, shafts, etc. JONES TACHOMETERS measure speeds either in RPM, feet or yards per minute, total output, or any desired indication.

Write for bulletin No. 146-2

JONES MOTROLA CORP.
STAMFORD, CONN.

IEN-5811

"...it's the bushing that makes the wHOLE difference"

To maintain maximum accuracy in drilling operations, use the bushing that's precision made for the job... use Acme Wiltefor catalog.

Acme Industrial Company
Makers of Hardened and Ground Precision Parts
215 N. LAFLIN STREET • CHICAGO 7, ILLINOIS
THE SERVICE SHOP TO INDUSTRY FOR MORE THAN 25 YEARS

IEN-5812

di-acro PUNCH

Send for "DIE-LESS DUPLICATING" Catalog

DI-ACRO is pronounced "DIE ACK RO"

O'NEIL-IRWIN MFG. CO.
115 EIGHTH AVENUE • LAKE CITY, MINN.

IEN-5813

GAGE . . Micrometer dial assembly to measure spur and helical gears

Source: URBAUER ENGINEERING CO
50 Naper St., Naperville, Ill.

Invar alloy

Readings

IEN-5814

CONTAINERS . . Waste receptacles, hinged top and doors, made of steel

Source: INDUSTRIAL PRODUCTS CO
2501 N. Fourth St., Philadelphia 33, Pa.

Two entire doors

IEN-5815

WOOD WORKING . . Saw table takes company's portable electric saw

Source: PORTER-CABLE MACHINE CO
1712-16 N. Salina St., Syracuse 3, N. Y.

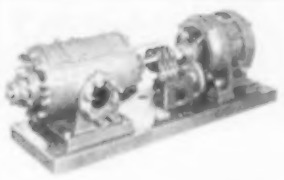
Model 5200

The saw takes

IEN-5816

REFRIGERATING . . Rotary compressor for booster service, ratings to 250 ton

Source: YORK CORP.
50 Thomas St., York, Pa.



Excellent value

The compressor shaft

All Makers of Equipment and All Other Products Are Listed in THOMAS REGISTER. Descriptions, Ratings, See Page 36

IEN-5817

No Moisture Removal System is Complete . . . without Economical Armstrong Air Traps

ARMSTRONG MACHINE WORKS
555 Maple St. • Three Rivers, Michigan

ARMSTRONG Air TRAPS

IEN-5818

CLANCY
SURE-GRIP HOSE CLAMPS

Clancy clamps grip evenly, hold any pressure, the hose stands. Each part separately galvanized . . . no raw edges, won't rust. Since Clips keep their shape, can be removed and reused. Use on gas, water or steam. Every size for foreign or domestic hose.

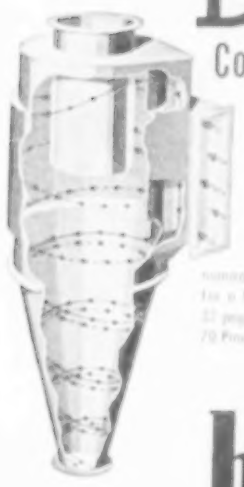
Write for prices.

CLANCY
1004 W. Belden Ave.
SYRACUSE 4, N. Y.

IEN-5819

Want the Answers on

Dust
Collection and
Recovery?



Every industrial engineer should know about the potential cost footprint shave-off . . . facilities in the fluid dust collection system. It makes possible dust collection that is effluent yet economical. Knell design eliminates plugging. For a full description, write for the new 32 page catalog to: Knell Engineering Co., 70 Pine St., Suite 5510, New York 5, N. Y.

buell
Engineered Efficiency in **DUST RECOVERY**

Manufacturing in the U. S. & Canada for Shipment Throughout North & South America

▼ BRIEFLY—(Identify by IEN - 5820 if you write the maker) ▼

Portable, High-capacity, High-voltage

Testing Units

GENERAL ELECTRIC

▼ BRIEFLY—(Identify by IEN - 5821 if you write the maker) ▼

GOLDEN-ANDERSON

Single Acting Differential Altitude

Valves

GA GOLDEN-ANDERSON *VALVE* Specialty Company
PITTSBURGH 22, PA.

▼ BRIEFLY—(Identify by IEN - 5822 if you write the maker) ▼

ACCURACY AT HEAT SOURCE!

Thermo ELECTRIC CO.
FAIR LAWN, N.J.

NEWS NOTES

▼ BRIEFLY—(Identify by IEN - 5823 if you write the maker) ▼

ACCUMULATORS . . How to use them to suppress hydraulic line shock told by bulletin

▼ BRIEFLY—(Identify by IEN - 5824 if you write the maker) ▼

ADHESIVES . . Dilution nomograph tells how much water to add to adhesive

▼ BRIEFLY—(Identify by IEN - 5825 if you write the maker) ▼

BRAZING . . Technical data sheet on expansion and contraction of metals being brazed

▼ BRIEFLY—(Identify by IEN - 5826 if you write the maker) ▼

CALCULATING . . Circular cardboard unit to add and subtract common fractions directly

▼ BRIEFLY—(Identify by IEN - 5827 if you write the maker) ▼

CASTINGS . . Picture book traces steps in producing non-ferrous and alloy steel castings

▼ BRIEFLY—(Identify by IEN - 5828 if you write the maker) ▼

DARNELL CASTERS and E-Z ROLL WHEELS

made in all sizes in both swivel and stationary types
furnished with either semi-steel or rubber tread wheels
assures maximum floor protection and reduces wear on equipment

DARNELL CORP LTD 60 WALKER ST NEW YORK 13 N Y
LONG BEACH 4 CALIFORNIA 30 N CLINTON CHICAGO 6 ILL

▼ BRIEFLY—(Identify by IEN - 5829 if you write the maker) ▼

WHEREVER VIBRATION IS A FACTOR

QUALITY CONTROL
PRODUCTION TESTING
TIME STUDY
INDUSTRIAL CONTROLS
MAINTENANCE CHECKS

SONOPROBE

is simple, accurate, and economical

A 3-stage electronic amplifier whose input is a contact microphone *unaffected by* air-borne noises. Permits quick, easy location, isolation, identification and measurement of any vibration. Invaluable in the testing and inspection of bearings, gears, assemblies, maintenance checks of machine tools, motors, automotive engines, many other uses. No *special training required to operate.*

Bench model illustrated operates on 60 cycle, 115-volt a.c.; battery operated portable model (weight 6½ lbs.) also available. For full information write

AIRCRAFT ELECTRONICS ASSOCIATES
Dept. A 1031 New Britain Avenue
HARTFORD 10, CONN.

▼ BRIEFLY—(Identify by IEN - 5830 if you write the maker) ▼

You'll raise at lower cost with **LO-HED HOISTS**

LO-HED MEANS LOW OVERHEAD

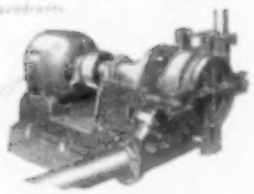
AMERICAN ENGINEERING COMPANY
PHILADELPHIA 25, PA.

AE Products are: Taylor and Perfect Spread Stakers, Marine Deck Auxiliaries, Hele-Shaw and Hydromatic Fluid Power, Lo-Hed Hoists, Car Shakers, Car Pullers

▼ REPEAT—Circle IEN-5831 on coupon for more data ▼

Only the New TYPE "R" MORRIS SLURRY PUMP has these 4 features

1. Gland is under suction pressure only. This feature practically eliminates packing troubles.
2. For dismantling, you need remove only four bolts. No internal studs or bolts . . . no troublesome fits or joints.
3. You can remove impeller and liner without disturbing piping.
4. Shell interchangeable for right or left-hand rotation. Suction and discharge nozzles can be rotated to position in any of four quadrants.



The New Type "R" Morris Slurry Pump handles sands or stiff viscous materials, including abrasive and corrosive solids, that are too expensive to handle along conventional lines. Investigate! Write for specifications and operating data on pumps best suited to your particular needs. No charge or obligation.

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Baldwinsville, N. Y.
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MORRIS CENTRIFUGAL PUMPS

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How Norgren Oil Fog Lubrication Increased Profit 4 ways!

...with these 4 Savings!

1. Stopped saw swabbing by hand.
2. Eliminated a deburring operation.
3. Doubled saw blade life.
4. Reduced lubricant expense 50%.

Get *Better Performance* from your air powered equipment with *Norgren Lubricators*.

Automatic • Assures top lubricating • Cuts oil lowering power • Works on head • Atomizes oil • Cuts material cost • Completely easy to install

Write C. A. Norgren Co.
[illegible]

Norgren
Lubricators
Regulators, Valves
Water Traps, Accessories

NEWS NOTES—Continued

"An electronics dictionary for a quarter"

▼ REPEAT—Circle IEN-5834 on coupon for more data ▼

DESIGN . . . College seminar on product design, June 26 to July 21.

▼ REPEAT—Circle IEN-5835 on coupon for more data ▼

ELECTRONICS . . . Dictionary of 64 pages lists definitions of some 2,500 terms in electronic work.

List price [illegible]

▼ REPEAT—Circle IEN-5836 on coupon for more data ▼

ELECTRONIC PRODUCTS . . . Technical data in looseleaf handbook on welded germanium diodes.

List price of $5.00 for new [illegible]

▼ REPEAT—Circle IEN-5837 on coupon for more data ▼

ELECTRONIC TUBES . . . Reference data on 132 miniature tubes in new 6 page folder.

Fourth Edition of the company's [illegible]

▼ REPEAT—Circle IEN-5838 on coupon for more data ▼

FLAME PROOFING . . . Technical data on material to flame proof textiles, fabrics.

Properties [illegible]

▼ REPEAT—Circle IEN-5839 on coupon for more data ▼

GAGES . . . Schematic drawing in bulletin shows operating principle of pneumatic comparator.

Step by step [illegible]

▼ REPEAT—Circle IEN-5840 on coupon for more data ▼

GRINDING . . . Instruction card on how to use diamond dressers for grinding wheels.

Eleven rules [illegible]

▼ REPEAT—Circle IEN-5841 on coupon for more data ▼

HANDLING . . . New 400 page book reviews the field of industrial material handling.

Purpose of new [illegible]

The Makers of Tools and All Other Products Are Listed in THOMAS' REGISTER — Illustrations — Ratings — See Page M

▼ REPEAT—Circle IEN-5842 on coupon for more data ▼

GET THE Thor STORY ON PORTABLE ELECTRIC SAWS

Write for Circular JE-1176

Silver Line
6 - 7 - 8 - 9 - 10 - 12 BLADE
MORE POWER IN EVERY SIZE

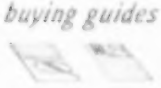
Thor POWER TOOLS

INDEPENDENT PNEUMATIC TOOL CO., AURORA, ILL.

▼ REPEAT—Circle IEN-5843 on coupon for more data ▼

Be Sure Your HACKSAWS, BAND SAWS and BAND KNIVES are backed by the name Starrett

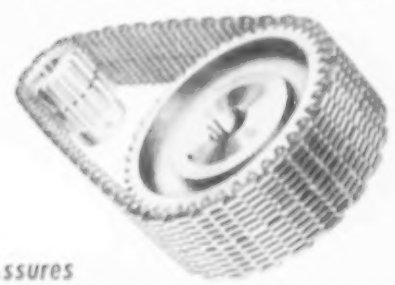
Get these buying guides



Starrett
Standard of Precision
Buy Through Your Distributor
THE L. S. STARRETT CO. ATHOL, MASSACHUSETTS, U. S. A.

▼ REPEAT—Circle IEN-5844 on coupon for more data ▼

WHITNEY SILENT CHAIN



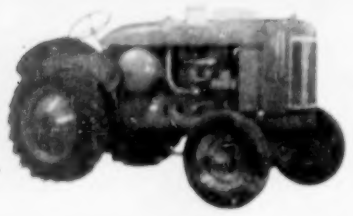
Assures Efficient, Positive Power Transmission

Regardless of your drive problems, Whitney Silent Chain will meet your particular requirements. Three rough, rugged Chains deliver full power without [illegible] Four precision Chains complete the combination assuring efficient power transmission. It will pay you to investigate us. Whitney Chain for quiet, positive transmission.

WHITNEY CHAIN COMPANY
202 Hamilton Street Hartford 2, Connecticut

▼ Request literature by IEN - 5845 if you write this maker ▼

SCHRAMM
Pneumatractor



SCHRAMM INC. THE COMPRESSOR PEOPLE WEST CHESTER PENNSYLVANIA

▼ Request literature by IEN - 5846 if you write this maker ▼

TAPER-LOCK SHEAVE

Different — Better!

EASY ON! EASY OFF!

U. S. Patent No. 2,401,743

Another Dodge "first" . . . the simplest, surest mechanism ever devised for holding wheels to shafts. No flange or collar, no protruding parts. Slip it on, line it up and tighten while sighting. Holds fast, with the firmness of a shrink on fit, yet disengages easily, positively! Available from distributors' stocks in big range of sizes . . . A, B, C and D grooves. *WRITE* today for complete data.

DODGE MANUFACTURING CORPORATION, 600 Union St., Mishawaka, Indiana

DODGE

of Mishawaka, Ind.

FIRST IN POWER TRANSMISSION MACHINERY

▼ Request literature by IEN - 5847 if you write this maker ▼

what are **Gaskets** made of?

with FEL-PRO it depends on the needs of YOUR PRODUCT!

FEL-PRODUCTS MFG. CO., 1323 Laurel Ave., Chicago 7, Ill.

FEL-PRO ENGINEERED Utilize Newest Materials

Specifically designed for your product **gaskets**

NEWS NOTES—Continued

An action program for steady jobs

▼ Request literature by IEN - 5848 if you write this maker ▼

LATHES — Available Sims on company's machines summarized in folder

▼ Request literature by IEN - 5849 if you write this maker ▼

LIGHTING — Planning suggestions for industrial plant lighting installations

▼ Request literature by IEN - 5850 if you write this maker ▼

LUMBER — Paneling patterns shown by sectional drawings in new folder

▼ Request literature by IEN - 5851 if you write this maker ▼

MANAGEMENT — Steadier jobs are urged by booklet that provides a check list for action

▼ Request literature by IEN - 5852 if you write this maker ▼

MANAGEMENT — Service organization consults with sponsors and users of business Sims

▼ Request literature by IEN - 5853 if you write this maker ▼

MANAGEMENT — A rubber dollar shows employees where company's money went

▼ Request literature by IEN - 5854 if you write this maker ▼

METAL POWDERS — House publication article describes parts designed for powder metallurgy

▼ Request literature by IEN - 5855 if you write this maker ▼

METAL TREATING — Data sheet on 24 phosphate coating chemical properties, uses

▼ Request literature by IEN - 5856 if you write this maker ▼

Why does an **ARIDIFIER**

REMOVE 92% OIL, WATER AND DIRT FROM GAS AND AIR LINES?

STUDY EXPLODED VIEW FOR ANSWER

Four multi-blade rotors revolve at high speed in opposite directions under impact of air movement through non-aligned rotor spaces. Moisture, dirt and other foreign matter which collect on rotor blades are thrown out of air stream by centrifugal force to side of housing, and pass into drain.

For paint and lacquer spraying, ceramic sand blasting, air cleaning, etc. Easily replaces less efficient baffle type devices. Tell us details of your problem when you write for literature.

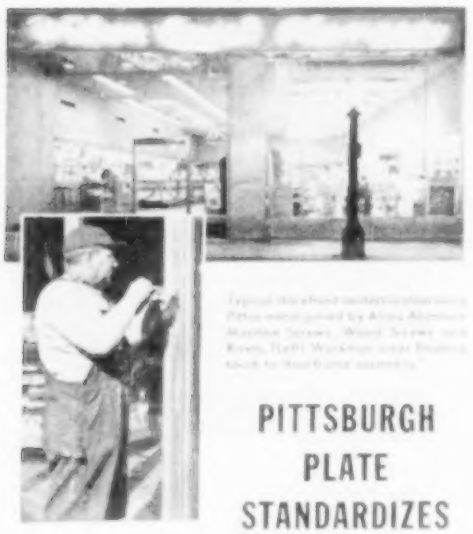
CAPACITY RANGE: AS LOW AS 7 CFM TO 17,000 CFM

Made By The Manufacturers of Logan Lathes and Shapers

Logan ENGINEERING CO.

1901 W. LAWRENCE AVE., CHICAGO 30, ILL.

▼ Request literature by IEN - 5857 if you write this maker ▼



PITTSBURGH PLATE STANDARDIZES ON ALCOA ALUMINUM FASTENERS

Where appearance and corrosion resistance are important . . . there's no better choice than Alcoa Aluminum Fasteners . . . for any product. Listen, for example, to what E. F. Toomy, Pittsburgh Plate Glass Company sales executive, says about Alcoa Fasteners for their Pittco storefronts:

"We standardize on Alcoa Aluminum Machine Screws, Wood Screws and Rivets in our storefront assemblies because they prevent electrolysis between the parts, and because they give us perfect color match, an important consideration in architectural work."

And not only that . . . Alcoa Fasteners are the lowest cost corrosion resistant fasteners you can buy! Sizes run up to 1/2" . . . are available in some types and sizes

Write for Free Samples

THE LOWEST-COST CORROSION RESISTANT FASTENERS ARE

ALCOA *Aluminum* **FASTENERS**

ALCOA ALUMINUM PRODUCTS

▼ Circle IEN-5859 on coupon for more information ▼

Graduated throttle closes automatically
Water valve is simple, compact
Swivel handle keeps heat from tiring
Positive chisel control assures safe operation
Piston has crosspin action
Exhaust air keeps work clean

Cut costs with the NEW ROTOR SCALER

For these jobs:

Weld slag removal	Scaling
Spatter cleaning	Stud shearing
Weld peening	Light chipping

Get to the Rotor Tool people if economy is the word used

THE ROTOR TOOL CO.
CLEVELAND, OHIO

▼ Circle IEN-5860 on coupon for more information ▼

THE MERCOID CORPORATION
4223 West Belmont Avenue, Chicago 41, Illinois

MANUFACTURERS OF AUTOMATIC CONTROLS FOR HEATING, AIR CONDITIONING, REFRIGERATION AND NUMEROUS INDUSTRIAL APPLICATIONS. ALSO MERCOID BRAND MERCURY SWITCHES.

MERCOID
CONTROLS AND MERCURY SWITCHES

DA PRESSURE CONTROLS

MERCURY SWITCHES

LIQUID LEVEL CONTROLS

TEMPERATURE CONTROLS

MERCOID FLOAT CONTROLS

MERCOID RELAYS

All Mercoid Controls are engineered and manufactured with emphasis on assuring better control performance and longer control life.

▼ Circle IEN-5861 on coupon for more information ▼

NEW KENNAMETAL DISC FILE

- *CUTS . . . Doesn't Grind*
- *SPEEDS UP JOBS*
- *SLASHES COSTS*

For Use on Non-ferrous Metals and Plastics to Snag Castings Cut Off Flashing, Face and Square Surfaces, etc.

KENNAMETAL Inc., LATROBE, PA.
MANUFACTURERS OF SUPERIOR CEMENTED CARBIDES AND CUTTING TOOLS THAT INCREASE PRODUCTIVITY

NEWS NOTES—Continued

"Movie on how to use color"

▼ Circle IEN-5862 on coupon for more information ▼

MOLYBDENUM . . . How to fabricate it described in new 5-sheet instruction bulletin

▼ Circle IEN-5863 on coupon for more information ▼

MOTORS . . . Useful information on maintenance of electric motors and generators

▼ Circle IEN-5864 on coupon for more information ▼

PAINTING . . . Color saved \$\$\$ describes how to use color in plants and buildings

▼ Circle IEN-5865 on coupon for more information ▼

PLATING . . . Vacuum metallizing equipment now supplied as package unit with technical advice

▼ Circle IEN-5866 on coupon for more information ▼

PRESSES . . . How-it-works" description on the Multipress 1 to 75-ton hydraulic press

▼ Circle IEN-5867 on coupon for more information ▼

PUMPS . . . New house publication on vacuum pumps and their use in processing

▼ Circle IEN-5868 on coupon for more information ▼

SHEARING . . . Booklet on knives includes nomographs on coil calculations

▼ Circle IEN-5869 on coupon for more information ▼

STEELS . . . Heat resistant types described as to properties and selection in booklet

All Makers of Floor And All other Products Are Listed In THOMAS REGISTER . . . Descriptions . . . Ratings . . . See Page 10

▼ Circle IEN-5870 on coupon for more information ▼

LESS TIME IN THE DIE SHOP
WITH
DANLY DIE SETS

LONGER LIFE ON THE PRODUCTION LINE

DANLY MACHINE SPECIALTIES, Inc.
2100 South 52nd Ave. Chicago 50, Illinois

Over 25 Years of Dependable Service to the Stamping Industry

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Every drawing is reproduced on
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200,000 detail drawings . . . A C & K drawing per sheet of paper . . . now in their files. These were reproduced on Autopositive. Then the prints were cut, and filed in separate file negatives. So, should it be necessary to reorder parts, the original drawing is not needed. Any print can be made directly from the negative . . . reduced time, more paper saved.

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Blueprint production is easier, too. They find these "autopositives" have universally translucent high quality paper base and clear photographic black lines which produce sharp blueprints. Result: sharper, cleaner blue prints are produced at uniform, practical machine speeds.

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"THE BIG NEW PLUS" in engineering drawing reproduction

Write today for an interesting booklet, "Kodagraph Autopositive Paper, which tells you how to produce engineering drawings economically.

EASTMAN KODAK COMPANY
Industrial Photographic Division
Rochester 4, N. Y.

Kodak

▼ ADDITIONAL DETAILS ON IEN-5873 AT THE WRITE THE MAKER ▼

NEW! DIFFERENT!

TWO NEW VALVES FOR *Effortless* CONTROL OF AIR CYLINDERS!

HERE is the newest thing in air valves for operating single or double acting air cylinders! Built for hand or foot operation, these instant-acting valves provide fast, effortless control comparable to an electric valve . . . at minimum cost.

DISC TYPE; SELF-LAPPING — Metal-to-metal seat. Air-tight. Packless.

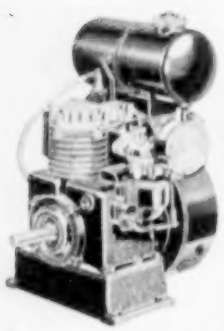
PILOT CONTROLLED, PISTON OPERATED — Only light touch required; air does the work — shifts the main valve.

PRECISION ENGINEERED — Simple, compact, self-contained, rugged! Try one today. *Ask for bulletins.*

HANNIFIN *Corporation*

1101 S. KILBOURN AVENUE • CHICAGO 24, ILLINOIS

▼ ADDITIONAL DETAILS ON IEN-5874 AT THE WRITE THE MAKER ▼



Four-Cycle
Air-Cooled

KOHLER ENGINES

- Compact
- Quick-Starting
- Reliable

Kohler Engines are designed, engineered and built to give the most dependable, economical and trouble-free service under all conditions of use. Kohler Electric Plants are used in farm and other industries. Made in several sizes. Have new overhead valve engines with greatly reduced fuel consumption. Write for information. Dept. 20 W. Kohler Co., Kohler, Wisconsin.

POWER FOR:
Farm Equipment
Garden Tractors
Water Pumps
Concrete Mixers
Construction Equipment
Conveyors
Rollers
Compressors
Sprayers
Motor Bikes
Grinders
And other uses

KOHLER OF KOHLER

Plumbing Fixtures • Heating Equipment • Electric Plants • Air-cooled Engines

▼ ADDITIONAL DETAILS ON IEN-5875 AT THE WRITE THE MAKER ▼

Smooth Traffic SAVES Time . . . .

The smooth flow of materials in your factory, warehouse, store, really rings the cash register . . . and no matter what your traffic problem is, we have the right kind of package conveyor equipment to help solve it to handle it most efficiently.

For the whole story MAIL THE COUPON

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55 Howard Ave.
North Quincy 71, Mass.

Please mail me your Catalog Folder
Name
Company
Address

NEWS NOTES — Concluded

"How to check your plant wiring"

▼ ADDITIONAL DETAILS ON IEN-5876 AT THE WRITE THE MAKER ▼

STEELS . . . Circular cardboard selector to pick the tool steel required for a given application

Six application groups are located on the outer edge of the disc. "Your Own Specifications" lines are marked there and used instead of using the cutting plane. Holding down a particular catalog number, or specification, an arrow points to the all tool or three steels available for each of two additional groups in the application groups. Information on the tool steels and their characteristics appears on a separate sheet.

▼ ADDITIONAL DETAILS ON IEN-5877 AT THE WRITE THE MAKER ▼

TAPES . . . Revised house publication prints new stories on applications of tapes

New format is announced for the magazine "Tapeology." The current issue is 24 pages long and contains pictures and descriptions of how Permacel tapes are used in electrical, plastics, packaging, automotive and many other industries.

▼ ADDITIONAL DETAILS ON IEN-5878 AT THE WRITE THE MAKER ▼

VALVES . . . Nomograph chart on press speed, stroke time, valve size

Application of new "Ross Speed and Stroke Time" chart is as follows: to select valve size for a given press speed and stroke time, connect the two known values with a straight line. The point where this line crosses the valve size scale indicates the valve size required.

▼ ADDITIONAL DETAILS ON IEN-5879 AT THE WRITE THE MAKER ▼

VENTILATING . . . Standards and test codes on centrifugal blowers, axial and propeller fans

Information presented is divided into eight sections and includes definitions, classifications, standard ratings, test codes, and tests. It covers standard terms and methods used in testing, rating and selecting of fans. The NAFM also has published a booklet containing the full text of the standards.

▼ ADDITIONAL DETAILS ON IEN-5880 AT THE WRITE THE MAKER ▼

WATER TREATING . . . What makes "soft" water and how to use it described in new bulletin

"Theory of Wet Water" is the name given to a bulletin describing the principles of hydrolytic sodium zeolite water softening. It explains what zeolite is, how it softens water, and how it is regenerated. Illustrations show the flow of water during the various steps in the softening and regeneration cycles.

▼ ADDITIONAL DETAILS ON IEN-5881 AT THE WRITE THE MAKER ▼

WATER TREATING . . . New test method for water hardness described in data sheet

Total hardness of water is determined by a titration of the sample with "A-B" standard soap solution to the endpoint. Procedure is simple and rapid. Data sheet gives full details of method.

▼ ADDITIONAL DETAILS ON IEN-5882 AT THE WRITE THE MAKER ▼

WIRING . . . Instruction book on how to check electric wiring in a plant

"Power Up—and Be Prepared" is the name given to a booklet containing information on how to check electric wiring in a plant. It covers general wiring practices, and includes a check list for inspecting wiring. Illustrations show how to check for loose connections, grounds, and other defects.

▼ ADDITIONAL DETAILS ON IEN-5883 AT THE WRITE THE MAKER ▼

X-RAY EQUIPMENT . . . New service plan provides packaged X-ray service for monthly fee

One monthly charge [illegible] service, including [illegible] and [illegible] of X-ray equipment, [illegible] and [illegible] of X-ray tubes, [illegible] and [illegible] of X-ray tubes, [illegible] and [illegible] of X-ray tubes

▼ IEN-5887 ▼

NO TIME LOST WONDERING HOW TO USE THIS EXTINGUISHER!

Hospitals can get a Randolph unit within PARTS The system for form, the occasion to refresh, your present unit serves a real through Randolph's factory CO. is now changing equipment without a break. It's time for

Underwriters Approved

Learn how Randolph protection plans further protection for you, no cost. Write for Free Book

A. E. KINZIE STREET
RANDOLPH LABORATORIES, INC. CHICAGO 11, ILLINOIS

▼ IEN-5888 ▼

CONSULT THESE EXPERIENCED FABRICATORS OF ROYALITE

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The United States Rubber Company • 3638 North Pulaski Road, Chicago, Illinois. Has complete Engineering, Designing and Selling Departments to assist fabricators in the technique to employ and in the art of fabricating most efficiently with ROYALITE

▼ IEN-5890 ▼

LATHE TOOLS . . Work driver mounts on spindles of Monarch lathes

Source: MONARCH MACHINE TOOL CO.
613-17 N. Oak St., Sidney, Ohio

Diameter range

The work

Two sets of jaws

▼ IEN-5891 ▼

FURNITURE . . Metal chair, upholstered design, chromium plated

Source: ROYAL METAL MFG. CO.
173-T N. Michigan Ave., Chicago 1, Ill.

List price

▼ IEN-5892 ▼

TESTING . . Machine for plastics checks resistance to scratch and shear

Source: TABER INSTRUMENT CORP.
107 Goundry St., North Tonawanda, N. Y.

Model 135

The assembly

▼ IEN-5893 ▼

LADDER . . Two part assembly for utility application, 4 to 14 feet

Source: LINCOLN MFG. CO.
P. O. Box E-A, New Windsor, Md.

Model AH

Metal trusses

All Makers of Plastic And All Other Products Are Listed In THOMAS' REGISTER Immediately Buyings . . . See Page 38

▼ IEN-5894 ▼

Test A-c Circuits while in service!

GE LOAD VISUALIZER

- Volts
- Amperes
- Watts
- Vars
- Power Factor

GENERAL ELECTRIC

▼ IEN-5895 ▼

Tied Right. Tied Tight... with GERRARD!

NO MATTER WHAT YOU'RE TYING

Gerrard Steel Strapping Company, 4701 So. Richmond Street, Chicago 32, Illinois

GERRARD
ROUND STEEL STRAPPING
UNITED STATES STEEL

▼ IEN-5896 ▼

MANY INDUSTRIAL ROLL PROBLEMS are solved by using

SHAF-TITE ROLLS

Many patented and exclusive features provide unmatched positive shaft setting. Your choice of many different types and materials: wood, rubber, iron, brass, stainless steel, glass etc. Whatever your roll problem, put it up to Rodney Hunt.

SEND FOR NEW CATALOG NO. 48

Most complete publication of its kind

Industrial Roll Division
RODNEY HUNT MACHINE CO.
172 Main Street, Orange, Mass.

REFER TO INDUSTRIAL EQUIPMENT NEWS IN YOUR INQUIRIES TO MANUFACTURERS SO THEY CAN SEND SPECIFIC INFORMATION

▼ IEN-5897 ▼

new portable "RED-A" bucket pump

- Drum charged container holds 35 lbs. of grease
- Allows quick volume discharge direct from bucket to bearing
- Delivers up to 3500 lbs. pressure

detachable "DYN-O-MITE" hand gun

- Stores any grease you need up to 10,000 lbs.
- Couples easily Red-A Bucket base for quick, volume delivery
- Clicks on as detached for free, independent operation

WRITE NOW

ALEMITE Pacemaker in Lubrication Progress

▼ IEN-5898 ▼

FANS

for Every Air-Moving Job!

It pays to FAN PLAN with America's most complete fan line . . . built to give you more service with less servicing.

Assure adequate ventilation and dependable performance with Emerson Electric powered Air Circulators with four types of mountings. Direct or Belt-Drive Exhaust Fans, Ceiling Fans, and Oscillating Fans. Choose the sizes and models best suited to your requirements.

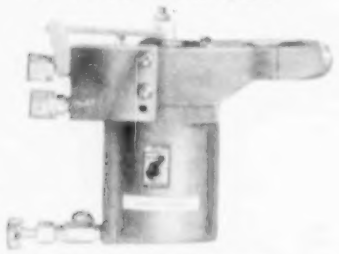
See your Electrical Contractor or write us for Exhaust and Ventilating Equipment Guide No. 54.

The Emerson Electric Mfg. Co.
St. Louis 21, Mo.

EMERSON ELECTRIC
MOTORS • FANS APPLIANCES

▼ IEN-5899 ▼

DOUBLE YOUR DRILL PRESS OUTPUT FOR $30



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DRILL PRESS FEED

for

DRILLING
REAMING
TAPPING

MEAD SPECIALTIES COMPANY

4114 NO. KNOX AVE., DEPT. EA-6C, CHICAGO 41, ILL.

▼ IEN-5900 ▼

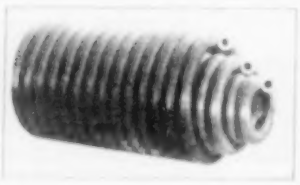
MIXING . . Motor driven blender for dry materials of varying character

Source: PATTERSON-KELLEY CO.
59 Burson St., East Stroudsburg, Pa.

▼ IEN-5901 ▼

REFRIGERATING . . Finned coil in nested assembly for use in condenser

Source: ROME-TURNEY RADIATOR CO.
107-11 Canal St., Rome, N. Y.



▼ IEN-5902 ▼

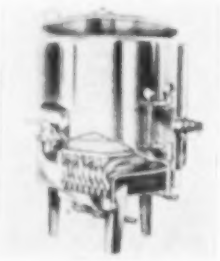
TESTING . . Hydraulic intensifier, air operated, tests pressure vessels

Source: COOPER-BESSEMER CORP.
700 Main St., Mount Vernon, Ohio

▼ IEN-5903 ▼

PROCESSING . . Steam jacketed kettle for low temperature steam cooking

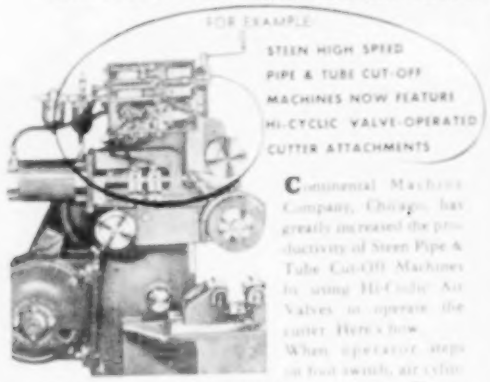
Source: ROYCE L. PARKER INC.
102 Addison Road, Addison, Ill.



50 Makers of These And 50 Other Products Are Listed In THOMAS REGISTER — Determining Ratings — See Page 10

▼ IEN-5904 ▼

1 PUT NEW SELLING POWER IN YOUR PRODUCT!
2 INCREASE YOUR PRODUCTION EFFICIENCY!
with Revolutionary **HI-CYCLIC AIR VALVES**



Continental Machines Company, Chicago, has greatly increased the productivity of Steel Pipe & Tube Cut-Off Machines by using Hi-Cyclic Air Valves to operate the cutter. Here's how . . .

When operator steps on foot switch, air cylinder makes a fast approach of the blade to the pipe. There's a *split second slow-down* to allow the blade to make gentle contact with the pipe and start revolving — then steady, powerful pressure is applied, cutting the pipe at high speed. Every action is completely controlled — without hydraulic checks — by the Beckett Hi-Cyclic Air Valves!

Hi-Cyclic Air Valves provide absolute control of air power. Investigate this new development in air engineering. Write for bulletin describing Beckett Hi-Cyclic Basic, Single and Double Solenoid, Piloted and Hydraulic Valves.

BECKETT-HARCUM CO., 1144 Wayne Rd., Wilmington, O.

▼ IEN-5905 ▼

don't let **OVERSIZE VARIATION** *raise your steel bills*

It's not "price per pound" that determines the cost of the flat-rolled steel you use in your product, but the cost per foot or per piece. When the strip thickness runs to the high side of the tolerance range, you get fewer feet per pound and, therefore, fewer units of production per ton. As a result, your steel costs go up. To effect oversize variation, freeze your steel bills.

Best oversize variation: specify CMP Thinsteel, the trade name identifying precision cold-rolled strip steel in low carbon, high carbon (annealed or tempered) and stainless grades. Thinsteel accuracy to gauge assures maximum yield per ton and offers a definite means of reducing cold-rolled strip steel costs to the minimum.

CMP
THINSTEEL

PRECISION COLD ROLLED C·M·P STRIP STEEL

the **C**old **M**etal **P**roducts co.
YOUNGSTOWN 1, OHIO

NEW YORK • CHICAGO • DETROIT • INDIANAPOLIS
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IEN-5907

Completely New!

An Entire Series of NEW, SMALL ROTARY SWITCHES By "Diamond H"

Both Types Available For Many Conventional And Special Circuits

NO OTHER SWITCH WILL GIVE YOU ALL THESE LONG-WANTED FEATURES

THE HART MANUFACTURING COMPANY
203 Bartholomew Ave., Hartford, Conn.

IEN-5908

THE INLET THAT *Boosted* COLLECTION *Efficiency*

Exclusive in the

VALMONT TYPE S DUST COLLECTOR

DESIGNERS AND MANUFACTURERS
PRAT-DANIEL CORPORATION
78-6 WATER STREET EAST PORT CHESTER, CONN.

IEN-5909

Know about new "FLEETWELD 72" for high speed production welding?

GET THE FACTS

THE LINCOLN ELECTRIC COMPANY

Sales Offices and Field Service Shops in all Principal Cities

IEN-5910

MOLDED PLASTIC . . Instrument door with insert to adapt second instrument

Source: AUBURN BUTTON WORKS INC.
50 Canoga St., Auburn, N. Y.

IEN-5911

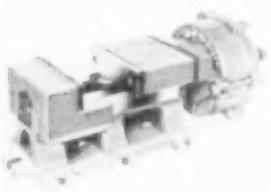
LADDER . . Made of aluminum in fourteen lengths from 10 to 36 ft

Source: ALUMINUM LADDER CO.
100 Carbis St., Worthington, Pa.

IEN-5912

VISE . . Air operated design to secure work on a machine table

Source: VAN PRODUCTS CO.
2121 Baldwin Bldg., Erie, Pa.



IEN-5913

PHOTOGRAPHING . . Flash tube actuated by discharge from condenser

Source: TRIUMPH MFG. CO.
911-23 W. Van Buren St., Chicago 7, Ill.

All Makers of These and All Other Products Are Listed in THOMAS' REGISTER — Descriptions — Ratings — See Page 16

IEN-5914

NORTHERN HI-LIFT HEAVY DUTY HOISTS

FLOOR CONTROL TYPE

CAB CONTROL TYPE

SWIVEL TROLLEY TYPE

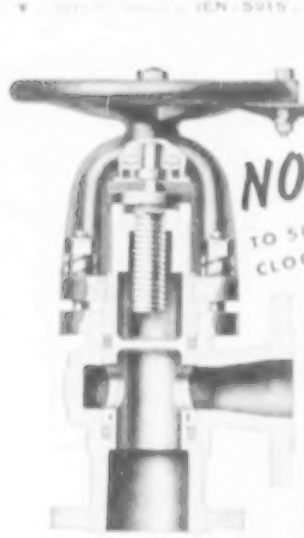
ALSO STANDARD AND TEARDROP TWO-TROLLEY TYPES

ASK FOR BULLETIN H-110

NORTHERN ENGINEERING WORKS, 2613 Alexander St., Detroit 7, Mich.

NORTHERN CRANES AND HOISTS

IEN-5915



NO SEAT!

TO SCORE . . . WEAR . . . CLOG . . . AND LEAK

YARNALL WARING COMPANY
122 Mermaid Ave., Phila. 18, Pa.

YARWAY BLOW-OFF VALVES

IEN-5916

SPECIAL OFFER TO MACHINE SHOP MEN

NOW ONLY $19.85 POST-PAID

PALMGREN

SWIVEL MACHINE VISE for use on

MILLING MACHINES · GRINDERS · DRILL PRESSES PLANERS · SHAPERS · SAWS · TAPPING MACHINES

No. 410

STURDY-BUILT FOR HARD USE—GUARANTEED

OFFER LIMITED—Order Quick—Send Coupon Today!

SPECIFICATIONS

CHICAGO TOOL AND ENGINEERING CO.
8406 South Chicago Ave., Chicago 17, Illinois

IEN - 5917

A Simple, Dependable

MOTOR OPERATED VALVE

DAVIS REGULATOR CO.
2529 South Wabash Ave
Chicago 5, Illinois

IEN - 5918

FAIRBANKS-MORSE INDUSTRIAL SUMP PUMPS

Handy, dependable. Save thousands of dollars by protecting machinery, merchandise and buildings from damage by excessive seepage and flash floods. Ideal for use in boiler and elevator pits, ash dumps, machinery base pits, storm sewers, and many other places.

Fairbanks-Morse sump pumps start when water reaches pumping level ... shut off when danger is passed. Can be left unattended. Made for 2 foot sump pits. Extension columns available when settings require them. For complete details of many construction features, pumping capacities and prices, write Fairbanks, Morse & Co., Chicago 5, Illinois.

FAIRBANKS MORSE
a name worth remembering

DIESEL LOCOMOTIVES AND ENGINES · ELECTRICAL MACHINERY · PUMPS · SCALES
HOME WATER SERVICES AND HEATING EQUIPMENT · RAIL CARS · FARM MACHINERY

IEN - 5919

WHEN YOU USE AMERICAN WELDING "Controlled Technique"

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2. Lower Cost
3. Closer Tolerances
4. Less Machining
5. Prompt Delivery

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150 DIETZ ROAD • WARREN, OHIO

IEN - 5920

PUMP . . Belt driven centrifugal
36 gpm. against 4 ft. head at 1,000 rpm.

Source: RUTHMAN MACHINERY CO.
1821 Reading Road, Cincinnati 2, Ohio

IEN - 5921

GAGE . . Vernier height instrument
reads direct to 6 in. in thousandths

Source: L. S. STARRETT CO.
100 Starrett St., Athol, Mass.

IEN - 5922

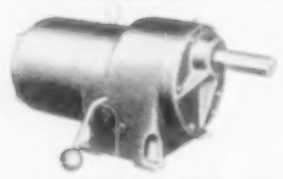
PROTECTING . . Plastic apron
impervious to acids, oils, alkalis

Source: AKRO-MILS INC.
P. O. Box 989-A, Akron 9, Ohio

IEN - 5923

DRIVE . . Four speed transmission
with integral motor, 1 to 5 hp. rating

Source: LIMA ELECTRIC MOTOR CO.
2401 Findlay Road, Lima, Ohio



IEN - 5924

POSITIVE POWER SUPPLY For Moving Machinery

CONSTANT DUTY

APPLETON REELITE

APPLETON ELECTRIC COMPANY
1716 Wellington Ave., Chicago 13, Ill.

APPLETON
CONDUIT FITTINGS · LIGHTING EQUIPMENT · OUTLET AND SWITCH BOXES
EXPLOSION PROOF FITTINGS · REELITE

IEN - 5925

It Pays to Specify EAGLE SPECIAL PURPOSE PADLOCKS

EAGLE LOCKER and BATH HOUSE PADLOCK No. 4500

EAGLE HOSE HOUSE PADLOCK No. 0429M

The EAGLE LOCK Company
Terryville, Connecticut

IEN - 5926

THE FAMOUS *Red Elastic Collar* IS A SYMBOL OF SECURITY

The RED ELASTIC COLLAR is
Permanently locked to prevent turning
Permanently secure against vibration
Permanently tight against moisture
Reusable with adequate locking torque

ESNA

ELASTIC STOP NUTS

ELASTIC STOP NUT CORPORATION OF AMERICA, UNION, N. J.

IEN-5927

CANNON SPECIALTY LIGHTS for Signal Devices

DNP-1
Night Light

DNP-3
Signal Light

...and household uses

CANNON ELECTRIC

IEN-5928

Write for Catalog
OF USES
and SPECIFICATIONS

GENERAL
Industrial Pneumatics
ADD THESE 6 SELLING POINTS TO YOUR PRODUCT

SAVE
- TIME
- LABOR
- FLOORS

REDUCE
- BREAKAGE
- MAINTENANCE
- COSTS

- AIR VOLUME
- STABILITY
- LOAD CAPACITY
- MILEAGE

MORE

THE GENERAL TIRE

SEND FOR CATALOG ... DEPT. 3

THE GENERAL TIRE & RUBBER CO. AKRON, OHIO

IEN-5930

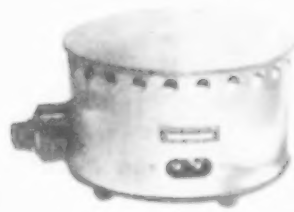
VENTILATING . . Steel louver
made to order in standardized design

Source: SWARTWOUT CO
19521 Euclid Ave., Cleveland 12, Ohio

IEN-5931

HEATING . . Electric hot plate
mounts 8-in. top. 275 to 1,100 watts

Source: WAAGE ELECTRIC INC
52 Park Place, New York 7, N. Y.



IEN-5932

HANDLE . . Plastic lift knob
locks in place in sheet metal cover

Source: SIMMONS FASTENER CORP
1010 N. Broadway, Albany 1, N. Y.

IEN-5933

CASTERS . . Swivel design
pin and plate units with rubber wheels

Source: DARNELL CORP
6211 E. 11th St., Long Beach 4, Calif.

All Makers of These Sub-Assemblies and Similar Products Are Listed in THOMAS REGISTER . . . Descriptions . . . Ratings . . . See Page 50

IEN-5934

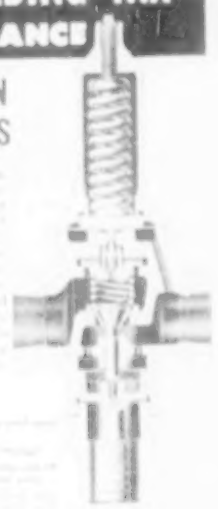
Over Half of America's Top Companies Use "Speed Sweep"

THE BRUSH WITH THE STEEL BACK

MILWAUKEE DUSTLESS BRUSH CO.
MILWAUKEE 1, WISCONSIN

IEN-5935

YOU PAY
NO WITHHOLDING TAX
ON PERFORMANCE
with MASONEILAN
REDUCING VALVES



MASON-NEILAN REGULATOR COMPANY
1150 ADAMS STREET
BOSTON 24, MASSACHUSETTS, U.S.A.

IEN-5936

Lost minutes come to light with
SYLVANIA BIRDSEYE
Reflector Lamps

SYLVANIA ELECTRIC
FLUORESCENT LAMPS, FIXTURES, SIGN TUBING, WIRING DEVICES, LIGHT BULBS, RADIO TUBES, TELEVISION PICTURE TUBES, ELECTRONIC PRODUCTS, ELECTRONIC TEST EQUIPMENT, PHOTOLAMPS, TELEVISION SETS

IEN-5937

Production Instrument Company
700-10 W. JACKSON BLVD., CHICAGO 6, ILL.
Representatives in Principal Cities

IEN-5938

SAVE MONEY 2 WAYS
with the
Saranac Corrugated Fastener Driver

1 On your production wood splicing jobs . . .
2 By turning wood scrap into usable material

Here's why this Saranac Splicer can save you cents, dollars.

It cuts and drives its own fasteners . . . 4 to 8 corrugations long . . . from standard low cost coil-wound stock. Drives fasteners from ½" to ⅝" wide into the hardest woods . . . or joins a hard board to a soft board. Repairs split boards . . . even anchors screw knots.

Make every piece of handled count. Prove it to yourself how SARANAC'S Corrugated Fastener Driver will pay its way in your plant . . . write for Bulletin 117 today!

DISTRIBUTORS ... NEARLY EVERYWHERE

Over a Half Century of Leadership

SARANAC MACHINE COMPANY
BENTON HARBOR, MICHIGAN

IEN-5939

Now you can have an oscillating/inclinable pump that will give long trouble-free service!

NUGENT Inclinable or Oscillating Pumps for Oiling Systems

Write for complete details and descriptive literature.

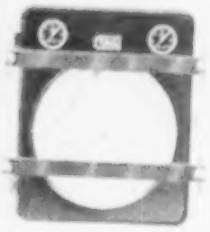
Wm. W. Nugent & Co., Inc.
1115 N. Hermitage Ave., CHICAGO 22, ILLINOIS

Oil Filters, Oiling and Filtering Systems, Telescopic Oilers, Oiling Devices, Sight Feed Valves, Flow Indicators — Representatives in Principal Cities

IEN-5940

CONTROL . . Recording instrument regulates flow of humidifying liquid

Source: WESTON ELECTRICAL INSTRUMENT CORP., 612-16 Frelinghuysen Ave., Newark 5, N. J.



IEN-5941

LOCKS . . Combination and tumbler padlocks for general industrial uses

Source: REESE PADLOCK CO., 124-8 Sherman St., Lancaster, Pa.

IEN-5942

TRUCK . . Stabilizer attachment bears down to hold a load steady

Source: TOWMOTOR CORP., 1224-8 E. 152nd St., Cleveland 10, Ohio

IEN-5943

CONVEYING . . Gravity roller design made of aluminum, 12 and 18 in. width

Source: RAPIDS STANDARD CO., 142 Keeler Bldg., Grand Rapids 2, Mich.

IEN-5944

ADVANCE ROLLING TOWERS

Convenient to Erect
because of the
Patented CAM LOCK*

BEAVER ART METAL CORPORATION, 1701 Factory Ave., Ellwood City, Pa.

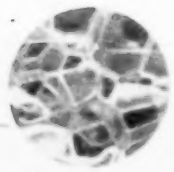
IEN-5945

RUBATEX GASKETS

. . . give the maker of this auto heater

. . . these advantages:

- NO AIR LEAKAGE
- PERFECT MOISTURE SEAL
- NO DUST PENETRATION
- 40% COST REDUCTION



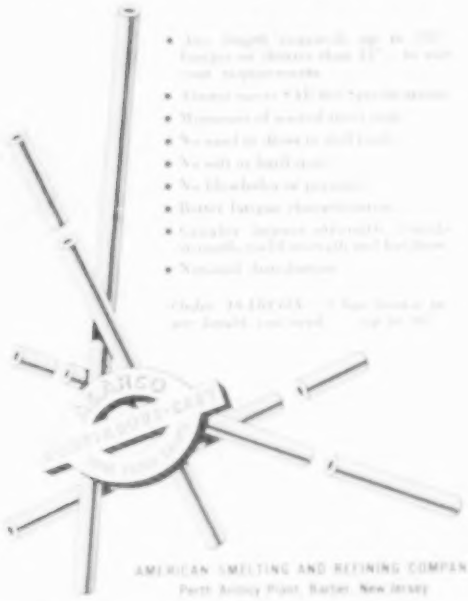
RUBATEX CLOSED CELL RUBBER

REFER TO INDUSTRIAL EQUIPMENT NEWS IN YOUR INQUIRIES TO MANUFACTURERS SO THEY CAN SEND SPECIFIC INFORMATION

IEN-5947

Asarcon 773 BEARING BRONZE

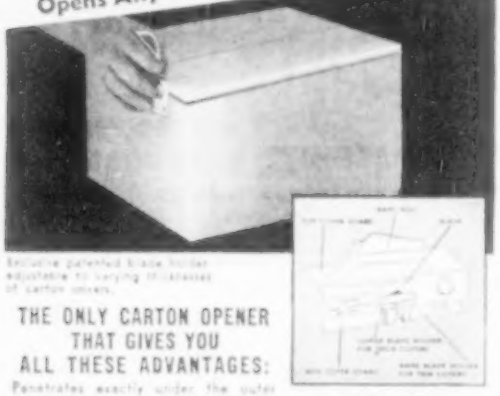
...IN ANY LENGTH YOU NEED



AMERICAN SMELTING AND REFINING COMPANY
Perth Amboy Plant, Barber, New Jersey

IEN-5948

Amazing
FLASH BOX OPENER
Opens Any Carton Quicker . . . Cleaner



Exclusive patented blade holder adjustable to varying thicknesses of carton covers.

THE ONLY CARTON OPENER THAT GIVES YOU ALL THESE ADVANTAGES:

Penetrates exactly under the outer cover thickness • Protects contents of carton • Cuts cleanly to permit reuse • Prevents accidents • Saves time • Eliminates fatigue. *Already accepted by leading industries.*

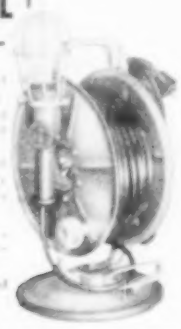
Retail Price
$1.75

FLASH BOX OPENER CO., Inc.
52 W. Houston St. • New York 12, N. Y.

IEN-5949

Makes Extension Cords Last 5 Times as Long!

PORTOREEL
CORD SAVER



- Handling loose cord costs you money!
- Weighs only 9 lbs. less cord and plugs . . . Reel top 12" . . . width 8" . . . Has free-turning winding knob.
- Available with or without cord and hand lamp.
- Has moisture-proof, rubbing contact collector ring. Prevents cord and reel twist.
- Low, level-wind cord guide prevents kinks and knots. Retains patented tie-ring. Rubber base prevents slipping.

Save up to 500% on cord handling EXPENSE!

INDUSTRIAL ELECTRICAL WORKS

IEN-5950

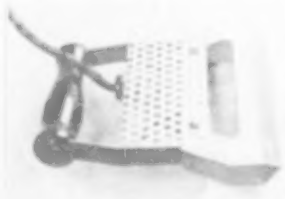
PROCESSING . . Abrasive machine to mill paint, varnish, ink, dyestuff

Source: MOREHOUSE INDUSTRIES
1154-58 San Fernando Road, Los Angeles 65, Calif.

IEN-5951

HEATING . . Portable electric tool softens putty for removal from window

Source: PITTSBURGH CAST PRODUCTS CORP.
1327-31 Burton Ave., Swissvale 18, Pa.



IEN-5952

STEAM TURBINE . . Impulse design for equipment drive, 5 and 15 hp.

Source: MOON MFG. CO.
126-30 N. Jefferson St., Chicago 6, Ill.

IEN-5953

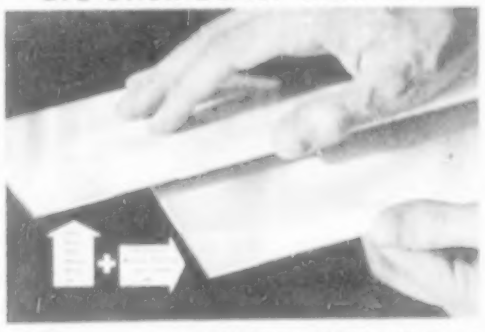
PROTECTING . . Goggle and headrest for welders, burners, furnace operators

Source: AMERICAN OPTICAL CO.
12-16 Mechanic St., Southbridge, Mass.

IEN-5954

IEN-5955

TWO METALS
are often better than one



and GENERAL PLATE will bond the Right Combination for you

GENERAL PLATE
706 FOREST STREET, ATTLEBORO, MASS.

IEN-5956

The Answer is often:

USE

SHAF-TITE® ROLLS

Many Patented Constructions

(choice of)

METAL, RUBBER, or WOOD ROLLS

Send For NEW ROLL CATALOG No. 48

RODNEY HUNT MACHINE CO.
Orange, Mass., U.S.A.

RODNEY HUNT

All Makers of Equipment and Its Major Products Are Listed in THOMAS REGISTER — Buy-Guide — Ratings — See Page 68

REFER TO INDUSTRIAL EQUIPMENT NEWS IN YOUR INQUIRIES TO MANUFACTURERS SO THEY CAN SEND SPECIFIC INFORMATION

▼ REFER TO IEN-5957 ▼

KIRK-BLUM
ECONOMY ADJUSTABLE HOODS
for buffing and polishing wheels

Reduce power needs

Provide more effective operation of dust control system

Power consumption is reduced and operation is more effectively utilized with Kirk & Blum Economy Adjustable Hoods. Smooth-design grades wheel-propelled dust particles directly into suction pipe. The Economy Hood is easily adjusted, permitting use on wheels of various diameters and work of any size. Hollow base acts as trap to catch small pieces of work. Quantity production of this hood results in low cost to you.

42 years of experience assure efficient dust control with Kirk & Blum installations. Write for Bulletin 2140.

FOR CLEAN AIR . . . THE 1000

The Kirk & Blum Manufacturing Co.
2206 Service Street
Cincinnati 25, Ohio

KIRK-BLUM
DUST CONTROL

▼ REFER TO IEN-5958 ▼

Only this O.C. fixture checks on all points!

O.C. OCULAR COMFORT

EASILY INSTALLED!
ECONOMICAL AND EFFICIENT!

1. Durable construction
2. One piece louver
3. Greater shielding of brightest lamp surfaces
4. Quickly easily installed
5. Easily cleaned
6. Low surface brightness

Distributed Exclusively through Electrical Wholesalers

Wheeler Reflector Company, 2-7 Congress St., Boston 10, Mass.

Wheeler REFLECTOR COMPANY
Lighting Equipment Specialists Since 1881

▼ REFER TO IEN-5959 ▼

Going Places...
WITH STALWART RUBBER PARTS

Special Compounds Solve Engineering Problems

To meet your most exacting requirements, STALWART can fabricate rubber parts to exacting specifications. Some are specially designed to withstand extreme temperatures, abrasion, oils, chemicals and other conditions. Others are compounded to meet rigid requirements of government and industrial specifications.

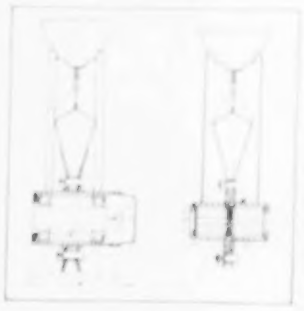
Stalwart engineers gladly cooperate in developing special products for your use. Let us help you with your rubber problems. Stalwart has the experience, the equipment and the facilities to serve you. Write for complete information.

THE STALWART RUBBER COMPANY
8352 Northfield Road
BEDFORD, OHIO
Specify Stalwart for Quality Custom Rubber Products

▼ REFER TO IEN-5960 ▼

WHEEL . . Steel disc design mounts 4.00 by 15 pneumatic tire

Source: GENEVA METAL WHEEL CO.
300 Railroad St., Geneva, Ohio



Two new designs have been added to the company's line of industrial wheels under the designation 1-140. One, shown to the left, is fitted with tapered roller bearings, a ground steel hub cap and grease seal for spindle diameter in four sizes from 1.19 to 1⅝ inches. The other, a simpler design for light duty, mounts straight roller bearings and retainers for a 1⅛ in. spindle. Overall hub lengths are 3 and 4⅝ inches.

Outside diameter over the tire is about 27 inches. Load rating is 1,000 and 1,500 lb. in 6 and 4 ply construction with inflation pressure at 30 and 50 lb. and speed of 5 mph.

▼ REFER TO IEN-5961 ▼

LUBRICATING . . Synthetic oil for clocks, watches, fine instruments

Source: DISTILLATION PRODUCTS INDUSTRIES
755 Ridge Road W., Rochester 3, N. Y.

Packaged 25 to 1,000 gram lots

Myvalube A is a non-volatile, non-drying synthetic oil that does not contain any petroleum base components. The oil is recommended for lubrication of watches, precision scales, gauges, slightly on wheel and not on all its brass. Brass and steel commonly together to the oil at 125 deg. F. Pour point is 65 deg. F. or below, no sign of corrosion or any other change.

Viscosity at 100 deg. F. is about 180 sus. Pour point is below 0°F. Flash point is 425 deg. F. with fire point at 500 deg. F. Evaporation is 0.5% or under 1 per cent after 100 hr. exposure to temperature of 158 deg. F.

▼ REFER TO IEN-5962 ▼

WINCH . . Motor driven car puller, horizontal drum, rates to 60,000 lb.

Source: ATLAS CORP.
41 Norman St., Mountville, Pa.

Model CO-HJ is a new horizontal motor driven winch to meet the Atlas Corp. rating system. It is rated at 60,000 lb. pull at 22 fpm. with a 10 in. drum capacity for 500 ft. of 1 in. cable. The drum will take 1,000 ft. of ¾ in. wire rope or 500 ft. of 1 in. rope.

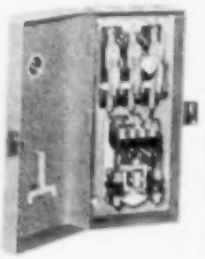
The drum is 20 in. in diameter between the 30 in. flanges. Drum dimensions is 10 in. wide. Face width is 20 inches.

Assembly is on a welded steel frame with the drum bearings on sliding shafts to permit the single load on the level drum. Drive is by a 30 hp. explosion proof motor and high speed pinion and gear reduction unit. Clutches are provided through a pinion and gear clutch and the brake operates on the drum. Brake is operated by a manual lever. Controls can be specified to suit.

▼ REFER TO IEN-5963 ▼

MOTOR CONTROL . . Magnetic starter with disconnect switch, fused or plain

Source: WARD LEONARD ELECTRIC CO.
29-33 South St., Mount Vernon, N. Y.



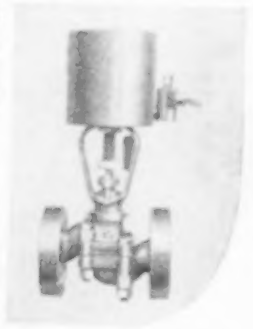
Bulletin 4120 describes the combination of magnetic motor starter and Form 2 non-automatic switch. Fuse mounted units are available up to 50 hp. on 3 phase 550 volt circuits. Standard open type units can be supplied for mounting in other enclosures. Standard enclosed units are NEMA Type 1 general purpose, Type 3 dust-tight, Type 4 watertight and Type 12 industrial.

Features include front type thermal overload protection, which can be reset without opening the door. The starter has a manual reset button on the door. Fuse clips are arranged for rear connection. Line terminals are provided for top or bottom entrance of conduit.

All Models of Plain and Disconnect Products Are Listed in THOMAS REGISTER . . . Descriptions . . . Ratings . . . See Page 82

▼ REFER TO IEN-5964 ▼

New... Solenoid-Operated Valves FOR ALL APPLICATIONS



SERIES 1520

Fluid passageways in body are cast and machined to ASME B and ANSI standards. Electric Operator is enclosed. Operated Valve.

Solenoid controls operation of pressure actuated valve, admitting the large-ended piston, providing a positive, bubble-tight shut-off against high line pressure.

Proven single seat valve body available in wide range of sizes and valve trims to suit particular corrosive and erosive conditions, with pressure classifications.

Sizes ¼" to 4" and larger.

• *Write for Bulletin 1520 today!*

THE ANNIN COMPANY
3500 Union Pacific Avenue • Los Angeles 23, California

▼ REFER TO IEN-5965 ▼

28 KEYS to this door!

Let the versatile MASONITE HARDBOARDS
Help you turn out more goods, for less!

It will pay you well to investigate all of the 28 basic advantages offered by the hard-working and easy-to-work Masonite Hardboards. Dress and durable grades of "wood made better" either or doing all sorts of jobs for all types of industries, in different types and thicknesses to meet your specific needs.

Here are just a few of the many reasons why they're preferred by so many manufacturers:

- Hard and smooth
- Equally strong in two directions
- Won't splinter, chip or crack
- Take almost any finish

Write for literature describing and explaining how Masonite can help you.

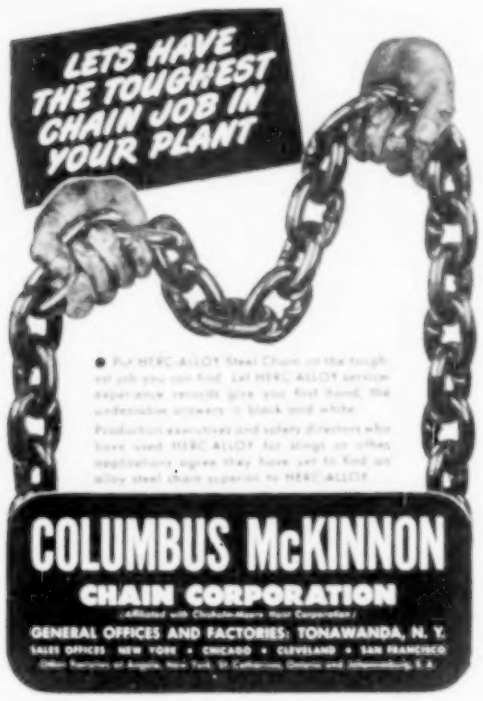
MASONITE CORPORATION
111 West Washington Street Chicago 2, Illinois

▼ REFER TO IEN-5966 ▼

FOOT-SAFETY IN EVERY FOOT!
AW SUPER-DIAMOND FLOOR PLATE
Puts Safety Where Accidents Begin

AW SUPER-DIAMOND
FLOOR PLATES THAT GRIP
ALAN WOOD STEEL COMPANY
Conshohocken, Pa.

▼ REPRINTS—Ideas in IEN-5967 at no extra charge ▼


LETS HAVE THE TOUGHEST CHAIN JOB IN YOUR PLANT
● Put HERC-ALLOY Steel Chain on the toughest job you can find. Let HERC-ALLOY service-experience records give you first hand, the information answers in black and white.
Production executives and safety directors who have used HERC-ALLOY for slings or other applications agree they have yet to find an alloy steel chain superior to HERC-ALLOY.
COLUMBUS McKINNON
CHAIN CORPORATION
(Affiliated with Chisholm-Moore Hoist Corporation)
GENERAL OFFICES AND FACTORIES: TONAWANDA, N. Y.
SALES OFFICES: NEW YORK • CHICAGO • CLEVELAND • SAN FRANCISCO
Other Factories at Ampere, New York, St. Catharines, Ontario and Johannesburg, S. A.

▼ REPRINTS—Ideas in IEN-5968 at no extra charge ▼

Floating plastic agitator sealed tight with 3M Sealer

Perfect job done for only 6¢ per unit

Tough problem at Vim Brothers Mfg. Co., Hempstead, Iowa: How to get a satisfactory seal between two plastic halves of washing machine agitators.

Sealer must stand up under mechanical stresses, must not be affected by temperature extremes, must be water tight.

3M Adhesives Engineers selected 3M Sealer EC-801, one of some 1000 specialized adhesives for industry — to do the job. Result: A satisfactory 6¢ fix-up.

It's a good bet that a 3M Product can save you money. Write Minnesota Mining & Mfg. Co., Adhesives and Coatings Div., 411 Piquette Ave., Detroit 2, Mich., Dept. IEN-650.

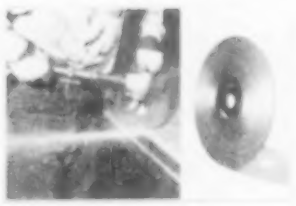
40 APPLICATIONS an hour made with single gun load of 3M Sealer EC-801. Evenly applied, it makes flexible, non-absorbent gasket between two halves of plastic agitator.

EASY TRIMMING of excess sealer using paper towel. Sealer resists water, gasoline, alcohol, but when uncured, is easily removed with solvents. Temperature tolerance

▼ REPRINTS—Ideas in IEN-5970 at no extra charge ▼

GRINDING . . Reinforced hub wheel applies on portable grinders, sanders

Source: NORTON CO.
30 New Bond St., Worcester 6, Mass.



Heavy duty

Construction

Bulletin

▼ REPRINTS—Ideas in IEN-5971 at no extra charge ▼

CONTROL . . Time delay switch stops idling engine after set interval

Source: TRANSPORTATION SAFETY APPLIANCES INC.
141-5 South Dearborn, Chicago 4, Ill.

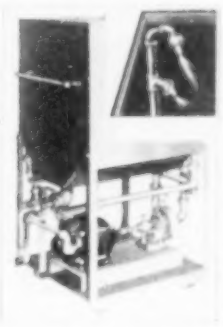
Idle Miser

Stops excessive engine idling

▼ REPRINTS—Ideas in IEN-5972 at no extra charge ▼

CLEANING . . Spray washing machine for instruments, office machines, parts

Source: INDUSTRIAL FILTER & PUMP MFG. CO.
1619-23 W. Carroll Ave., Chicago 12, Ill.



Motor driven pump

▼ REPRINTS—Ideas in IEN-5973 at no extra charge ▼

VALVE . . Double disc motor driven to deliver dry powders from a hopper

Source: BUELL ENGINEERING CO.
70 Pine St., 30th Floor, New York 5, N. Y.

Two hinged discs

Alternate disc action

▼ REPRINTS—Ideas in IEN-5974 at no extra charge ▼

Faster Operation with Higher Pressures
DENISON Hydraulic Circuits up to 5,000 psi

The DENISON Engineering Co.
DENISON Hydr-OIL-ics

▼ REPRINTS—Ideas in IEN-5975 at no extra charge ▼

Improved Method Centrifugal SPRAY DRYER and CONCENTRATOR*

THE DRYING AND CONCENTRATING COMPANY DRYER

DEHYDRATING

Chemicals
Pharmaceuticals
Milk Products
Blood or Blood Plasma
Soups, Vegetables, etc.

*CONCENTRATOR AVAILABLE SEPARATELY

DRYING and CONCENTRATING CO.
332 SOUTH MICHIGAN AVENUE, CHICAGO, ILLINOIS

▼ REPRINTS—Ideas in IEN-5976 at no extra charge ▼

NEW STOCK LIST
EVERLASTING FASTENINGS

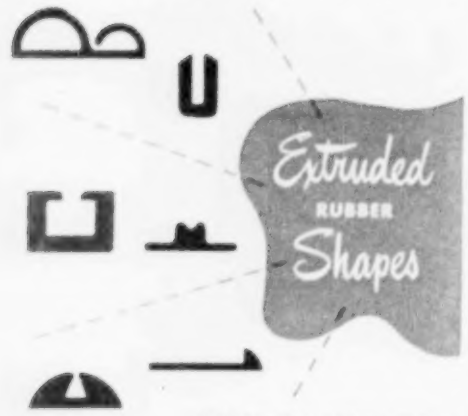
FREE

MAIL COUPON TODAY

H. M. HARPER CO., 8211 Lehigh Ave., Morton Grove, Ill.

REFER TO INDUSTRIAL EQUIPMENT NEWS IN YOUR INQUIRIES TO MANUFACTURERS SO THEY CAN SEND SPECIFIC INFORMATION

▼ [illegible] IEN-5977 [illegible] ▼



WHAT DO YOU NEED?

We have a multitude of dies available to meet your requirements. Designs shown are but a few in our large and varied assortment. Lowest possible cost per unit. Send specifications *today*.

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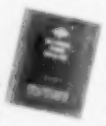

Illustrates and describes standards CAVELLE line molded and industrial rubber specialties. Be sure you have today.

Take It Up With

CAVELLE *Rubber Company*

1611 WEST HUBBARD STREET, CHICAGO 22, ILLINOIS

▼ [illegible] IEN-5978 [illegible] ▼

FIGHT THEM WITH DOUBLE-ACTION PERMAX!

FLIES
MOSQUITOES
MOTHS
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ROACHES
ANTS
SILVER FISH

CONTAINS 5% DDT

SPRAY Permax into the air (one cupful to every 8,000 cubic feet). Direct killing action approaches 100%. Permax contains a special solvent which prevents DDT crystallization, plus a rust inhibitor to protect sprayers and containers.

BRUSH Permax on walls, in corners, along moldings for long-lasting residual effect. One gallon easily covers 950 square feet.

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PERMAX
The C. B. DOLGE Co.
WESTPORT, CONNECTICUT

▼ [illegible] IEN-5979 [illegible] ▼

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32 Bonnets

14 Diaphram Materials

49 Body Materials

No matter how specialized your problem of valving corrosive and/or hazardous substances, slurries, viscous liquids, gases, fermentation products, materials subject to coagulation, foods or beverages, the chances are that Hills-McCanna can furnish the proper valve to meet your needs. Write today, for full information and descriptive literature. HILLS-McCANNA CO., 2347 W. Nelson Street, Chicago 18, Illinois.

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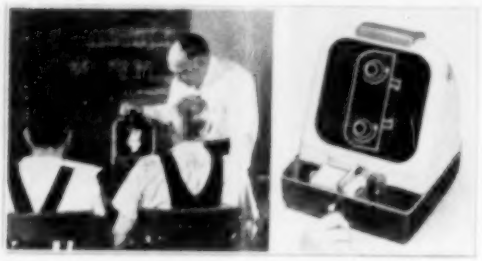
Saunders patent diaphragm valves

Pharmaceutical Plants
Dairy Plant Laboratories • Petroleum Alloy Coolers

▼ [illegible] IEN-5980 [illegible] ▼

PROJECTOR . . Film slide viewer for 2 in. slides on 7½ in. screen

Source: EASTMAN KODAK CO.
341-5 State St., Rochester 4, N. Y.



The slide viewer [illegible]

▼ [illegible] IEN-5981 [illegible] ▼

CAMS . . Laminated steel design in specified outline and quantity

Source: TECHNICAL METAL PROCESSING INC.
5486 Lake Court, Cleveland 14, Ohio

Facilities for [illegible]

The company [illegible]

▼ [illegible] IEN-5982 [illegible] ▼

HANDLING . . Synthetic rubber pail holds 3 gallons, unbreakable design

Source: AMERICAN HARD RUBBER CO.
9-13 Mercer St., New York 13, N. Y.

Ace Hide [illegible]

▼ [illegible] IEN-5983 [illegible] ▼

PACKAGING . . Moisture proof bag to specification for finished products

Source: MUNSON BAG CO.
1357-61 W. 117th St., Cleveland 7, Ohio

Instruments, [illegible]

The designs [illegible]

▼ [illegible] IEN-5984 [illegible] ▼

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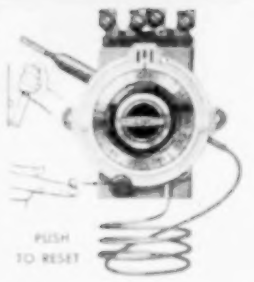
COMBINATION THERMOSTAT AND OVER TEMPERATURE CUT-OUT

Combines temperature control with single pole switch. Current is automatically cut off and switch is locked in open position if temperature at any dial setting, through any cause, exceeds temperature range of control by 7½ in liquids or 12½ in air. Switch remains open until closed by manual reset button. Design permits mounting control in any one of four positions. Standard size bulbs and capillary tube lengths give great flexibility to meet required heat ranges and installation needs.



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THERMOSTAT DIVISION
ROBERTSHAW-FULTON CONTROLS COMPANY
YOUNGWOOD, PENNSYLVANIA

▼ [illegible] IEN-5985 [illegible] ▼

At Fred Heinzelman & Sons
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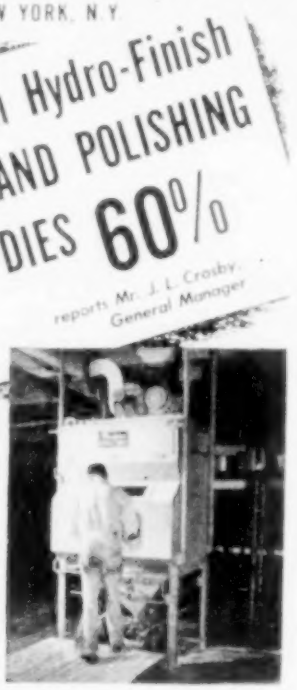
Pangborn Hydro-Finish CUTS HAND POLISHING OF DIES 60%
reports Mr. J. L. Crosby, General Manager



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BLAST CLEANS CHEAPER
with the right equipment for every job

▼ IEN-5987 ▼

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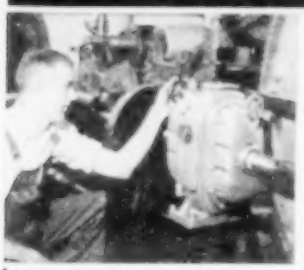

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LINK-BELT P. I. V.
Variable Speed Drive

Operation is Easy—
Quick—Accurate

LINK-BELT COMPANY

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Gives full details
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▼ IEN-5988 ▼

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Automatic Switch Co.
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- Trailer Bodies

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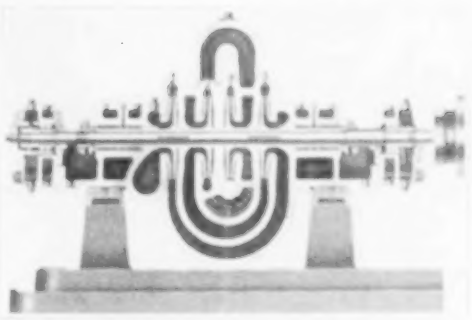
▼ IEN-5990 ▼

PUMP . . Four stage centrifugal
to 800 gpm. and pressure to 725 pounds

Source: AMERICAN MARSH PUMPS INC
1929 Capital Ave., N. E., Battle Creek, Mich.



Type dSMH

Water inlets

Bulletin 102

▼ IEN-5991 ▼

PROTECTING . . Polaroid sun glasses
with lenses to adjust light admission

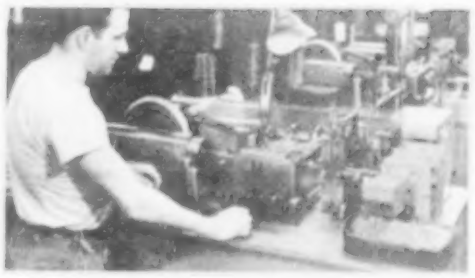
Source: PIONEER SCIENTIFIC CORP
253-7 Lafayette St., New York 12, N. Y.

Holder

▼ IEN-5992 ▼

PINS . . Rolled and cut metal
to specification, lengths to 1 1/2 in.

Source: SYLVANIA ELECTRIC PRODUCTS INC
1740 Broadway, 15th Fl., New York 19, N. Y.



small metal pins

Close tolerance

▼ IEN-5993 ▼

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speeds up process
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with
CRYSTOLON WHEELS
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Help Cut Costs—

VARIETY OF RANGES

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▼ IEN-5996 ▼

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PRODUCT OF WICKWIRE SPENCER STEEL DIVISION
THE COLORADO FUEL & IRON CORPORATION

CF&I

▼ IEN-5997 ▼

NO FINER LIQUID SOAPS!

. . . FOR THE MONEY YOU HAVE TO SPEND

BALMA The PREMIUM SOAP

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DISPENSERS AVAILABLE IN SEVERAL TYPES

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WESTPORT, CONNECTICUT

▼ IEN-5998 ▼

Here's the
RIGHT FORMULA
FOR CHOOSING STEAM TRAPS

X = PURCHASE PRICE OF TRAP
Y = COST OF INSTALLING TRAP
Z = COST OF MAINTAINING TRAP
X+Y+Z = TOTAL EXPENSE

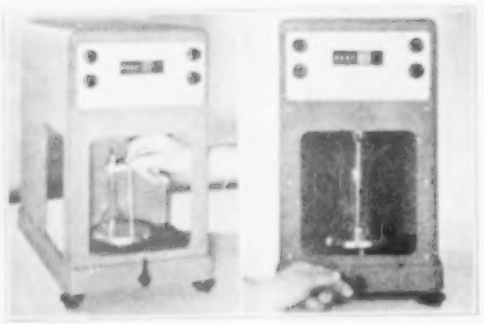
THE V. D. ANDERSON COMPANY

SUPER-SILVERTOP STEAM TRAPS

▼ IEN-5999 ▼

WEIGHING . . Analytical balance to 200 grams, four decimal places

Source: FISHER SCIENTIFIC CO.
715-19 Forbes St., Pittsburgh 19, Pa.



▼ IEN-6000 ▼

SWITCH . . Dual foot operated unit, 10 amp. on 110 volt ac., 18½ ounces

Source: SIMONDS MACHINE CO.
50 Saxon Road, Southbridge, Mass.

▼ IEN-6001 ▼

LUBRICATING . . Grease pump and gun to fill from standard grease container

Source: STEWART-WARNER CORP.
1829 Diversey Parkway, Chicago 14, Ill.

▼ IEN-6002 ▼

it takes just 2 seconds to reach- and talk to anyone in your business with

ELECTRONIC **AMPLICALL** INTERCOMMUNICATION

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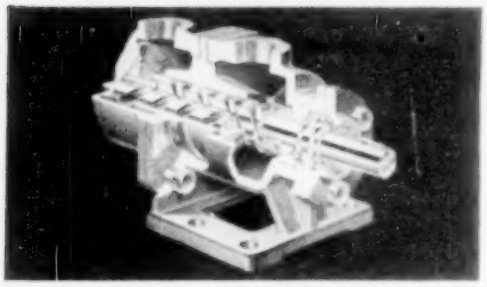
▼ IEN-6003 ▼

A NEW IMO PUMP
AT LOWER COST THAN EVER BEFORE!



ALL THESE ADVANTAGES AT LOWER COST THAN EVER BEFORE

RELIABILITY—no gears, vanes, pistons. Nothing to get out of order or adjust. The mechanical packing seals never require attention.

QUIETNESS—no noise, no vibration.

FREEDOM FROM PULSATION—continuous, axial flow.

HIGH SPEED OPERATION—for direct connection to motors, turbines, and machines.

Used for cooling LUBRICATING OILS

Capacities to 50 gpm; pressures to 150 psi. For lubrication service, oil transfer, low pressure, hydraulic systems, and general pumping of oil and viscous fluids.

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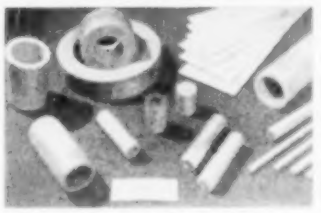
IMO PUMP DIVISION of the
DE LAVAL STEAM TURBINE CO.
TRENTON 2, NEW JERSEY

▼ IEN-6004 ▼

TEFLON STOCK



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Bars

IMMEDIATE DELIVERY

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IEN - 6005

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ILLINOIS DIE FILING MACHINE

An accurate, smoothly-operating machine that files, saws and stones the most intricate die shapes ... eliminates tedious hand operations ... reduces costs. It is quality built for long, trouble free service ... hardened and ground shafts running in bronze bushings minimize wear. The holding chuck and clamping device provide perfect file alignment.

Sawing

Write for descriptive literature

Stoning

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MANUFACTURERS OF METAL CUTTING TOOLS AND SHAKEPROOF PRODUCTS

IEN - 6006

NEW

Mono-Cushion

Cushion all the way through

a

a

Tough all the way through

adds up . . .

MONARCH

IEN - 6008

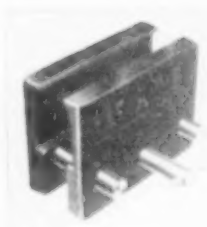
VALVE . . Cam operated design adjusts opening to matching variable

Source: ATLAS VALVE CO.
260-A9 South St., Newark 1, N. J.

IEN - 6009

VISE . . Steel assembly holds roller chain for work on links

Source: MORSE CHAIN CO.
7603 Central Ave., Detroit 9, Mich.



IEN - 6010

LUBRICATING . . Gravity feed oiler, 1 to 8 oz. capacity, plastic housing

Source: TRICO FUSE MFG. CO.
2936-50 N. 32nd St., Milwaukee 12, Wis.

IEN - 6011

GRINDING . . Multiple wheel machine also cuts, sands and polishes the work

Source: SPECIALTIES MFG. CO.
223-7 W. 5th St., Kansas City 5, Mo.

IEN - 6012

where steam is cheap

Use

T-S

is the ideal compressor for small capacities

CHICAGO PNEUMATIC TOOL COMPANY
General Offices: 6 East 44th Street, New York 17, N. Y.

IEN - 6013

IEN - 6014

The best conveyor design combines

- ENGINEERING
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MHS MECHANICAL HANDLING SYSTEMS, INC.
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▼ Reader Service No. IEN-6015 ▼

5000 LB. LOADS GET SAFE TRACTION ON THIS SURE-GRIP ferrox* SURFACE

Ferrox coated ramp at a large, well known chemical company provides safe traction both up and down.

PROBLEM—An outdoor ramp, subjected to weather, dirt, grease and hard use from heavily loaded trucks and busy feet.

SOLUTION—More than 3 years ago, FERROX abrasive compound was troweled onto ramp surface at very low cost. Still giving good traction and sure footing today, under constant use.

FERROX is easy to apply — Simply trowel on danger spots — One gallon covers 40 sq. ft. Dries over night — Firmly embedded abrasive particles provide good traction and sure footing under wet, dry or oily conditions.

For free literature describing uses and application data, write or phone this firm.

AMERICAN ABRASIVE METALS CO.
468 COIT ST. • IRVINGTON, N. J. • Phone: ESsex 3-7060

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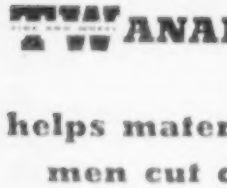
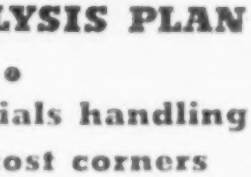
B.F.Goodrich

T & W ANALYSIS PLAN

helps materials handling men cut cost corners



HEAT A FACTOR IN YOUR PLANT? B.F.G. "Oil-Proof" compound is the answer. Highly heat-resistant!



No problem is too small . . . nor too large for the T & W analysis man. Ask him in, even though your problems are little ones.

Here's how you can make big savings in tire and wheel costs, equipment maintenance and floor maintenance. An experienced tire and wheel man will survey your operation. He will study loads, loads, handling equipment, floors and loading surfaces, and discuss any special problems you may have.

On completion of this survey, the BFG man, with no charge or obligation on your part, will submit recommendations as to the best type and size tires and wheels for your particular service with information on the longest-wearing compounds and on retreading. He will also provide suggestions on tire care and maintenance.

Send in the coupon below and start the wheels rolling for a B.F.Goodrich industrial tire and wheel expert to visit your plant and make your cost-cutting T & W analysis. You'll find the BFG man a helpful one. He has no axe to grind. For any one type of tire . . . his company makes and sells *all* types in *all* sizes!

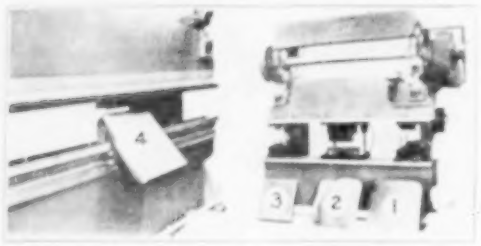
Dealerships Available In a Few Localities—
Write B. F. Goodrich, Akron

The B.F.Goodrich Co.
Department TW
Akron, Ohio
Please give me additional information about new Tire and Wheel Analysis plan.
Name
Title
Company
City State

▼ Reader Service No. IEN-6018 ▼

PRESS TOOLS . . Corner form dies to make panels in standard press brake

Source: VERSON ALLSTEEL PRESS CO.
9325 S. Kenwood Ave., Chicago 19, Ill.



Ball corners are formed in a developed blank by a new set of dies that the company has developed for use in its 60-ton Verson press brake. Four dies and punches make up the set. These are mounted together in one machine to progressively form the corners on the blank. Also there are two other dies.

The fourth operation is a separate machine to complete the formed piece. For edge straightening and final sizing and flanging. This fourth unit can be expanded or contracted by use of extension sections to fit a given piece. Capacity ranges to the unit can be specified.

▼ Reader Service No. IEN-6019 ▼

SOLDERING . . Tinning paste to bond babbitt to a bearing shell

Source: UNITED AMERICAN METALS CORP.
202 Diamond St., Brooklyn 22, N. Y.

Instructions on each tube

Tinlite, the suggested flux for [illegible] in preparing babbitt metal surfaces for soldering and to bond the babbitt to the steel shell in babbitt bearings. It is spread over the steel shell and then the shell is heated by steam [illegible]. It is applied to aluminum, brass, copper, steel or cast iron parts [illegible] the babbitt can be poured. Tinlite is [illegible] and is [illegible] to [illegible].

▼ Reader Service No. IEN-6020 ▼

PACKAGING . . Rotary filling machine operates 30 liquid spouts in a circle

Source: MRM CO.
189-93 Berry St., Brooklyn 11, N. Y.

New Model [illegible] machine for packaging [illegible] in bottles, jars, cans or other containers. The machine handles [illegible] at speeds up to [illegible] per minute. Operation is [illegible]. Containers are [illegible] and [illegible] by [illegible]. Machine [illegible] and [illegible] [illegible] [illegible]

▼ IEN - 6025 ▼

• TIME NOW to get for your [illegible]

REZNOR MANUFACTURING COMPANY
10 UNION STREET • MERCER, PENNA.

▼ IEN - 6026 ▼

A few of the Many Uses for GPX:

Use it in INDUSTRY:
- [illegible]

Use it for CONSTRUCTION:
- [illegible]

Use it for FURNITURE:
- [illegible]

Use it in the HOME:
- [illegible]

GPX is Weatherproof
GPX is Water Resistant
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GPX is Stain Resistant
GPX is Vermin Resistant
GPX is Smooth
GPX is Fade Strong
GPX is Workable
GPX Durable
GPX Amazing

GP — GEORGIA-PACIFIC

For complete data, fill in and mail this coupon today

Please send me GPX [illegible]

NAME

FIRM NAME

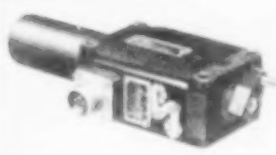
FIRM ADDRESS

POSITION

▼ IEN - 6028 ▼

DRIVE . . Electric rotary actuator rates 350 in. lb. through 180 degrees

Source: AIRBORNE ACCESSORIES CORP
23-27 Montgomery St., Hillside 5, N. J.



New design [illegible]

The assembly [illegible]

▼ IEN - 6029 ▼

PRINTING . . Stencil type unit will print six lines as required

Source: HEYER CORP
1848-52 S. Kostner Ave., Chicago 23, Ill.

Portable Addressing [illegible]

▼ IEN - 6030 ▼

CUTTING . . Hand or power machine for corrugated paper, wadding, linoleum

Source: CHIPPEWA PAPER PRODUCTS CO.
3313-17 W. 48th Place, Chicago 32, Ill.

Chippewa [illegible]

To make it [illegible]

▼ IEN - 6031 ▼

DID YOU KNOW THAT . . .

$110.00 [illegible]

60,338 [illegible]

86.1% [illegible]

96.4% [illegible]

Check for [illegible] and for Buying

For [illegible] address

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THOMAS PUBLISHING COMPANY
461 Eighth Avenue New York 1, N.Y.

▼ IEN - 6032 ▼

Champ Hot Water Team!

JOHNSON

Heater plus steam

[illegible]

Sizes for all needs, write for literature

The Johnson Corporation

805 Wood St., Three Rivers, Mich.

▼ IEN - 6033 ▼

Syncro Corporation Calls It "A MUST-HAVE FEATURE"!

"We feel that the Bakelite Phenolic Plastic handle of our new Syncro Sander-Polisher is a must-have feature."

[illegible]

Bakelite Phenolic PLASTICS.

BAKELITE DIVISION

BAKELITE DIVISION
[illegible]
30 East 42nd Street, New York 17, N.Y.

IEN - 6035

HOW YOU CAN BOOST YOUR PROFITS

BROWN TIME SAVING RACK

BROWN ENGINEERING CO.

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IEN - 6036

LOW!
★ FIRST COST
★ INSTALLATION
★ MAINTENANCE

FOR —
Assembling
Staking
Trimming
Riveting

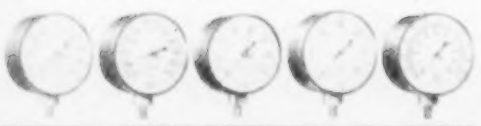
HAPCO HY AIR PRODUCTS CO.

IEN - 6037

the right answer

. . . to every gauge need
IN THIS NEW CATALOG

MARSH INSTRUMENT CO.



IEN - 6038

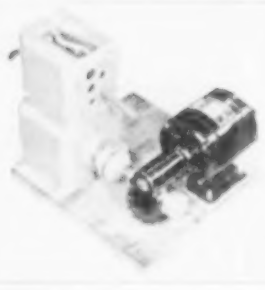
HEATING . . Gas fired space unit
seven sizes rate 70,000 to 230,000 btu.

Source: AMERICAN BLOWER CORP.
8100-13 Tireman Ave., Detroit 32, Mich.

IEN - 6039

PUMP . . Compression finger unit
maintains flow through resilient tube

Source: E. & M. ENTERPRISES, INC.
37 Vernon St., Middleport, N. Y.



IEN - 6040

was this call necessary?

DON'T FORGET — THE LIFE YOU SAVE MAY BE YOUR OWN

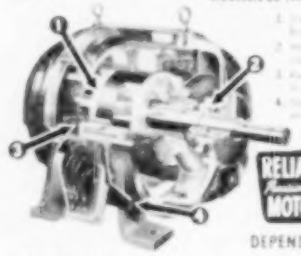
Published in the public interest by
INDUSTRIAL EQUIPMENT NEWS
Thomas Publishing Company
461 Eighth Ave. New York 1, N. Y.

IEN - 6041

WHY HASN'T SOMEBODY TOLD ME THIS BEFORE?

"...all motors are NOT ALIKE"

These 4 Advantages Alone make RELIANCE the motor that is different!



RELIANCE Form-Fit MOTORS ...are made better to deliver DEPENDABLE POWER LONGER!

HOW TO SELECT THE RIGHT MOTOR

RELIANCE ELECTRIC & ENGINEERING CO.
1062 IVANHOE ROAD CLEVELAND 10, OHIO

IEN - 6042

IN LEATHER PACKINGS...
Only PHILAPAC CAN GIVE YOU
*Lifetime Lubrication**

* The unique Philapac Formula-37 for "lubrication of leather for life" assures leather packing action that actually outlasts the application

PHILADELPHIA Belting Company
PHILAPAC IN PACKINGS . . . PHILABELT IN BELTING

IEN - 6043

New
POCKET SIZE
VOLT-OHM-MIL-AMMETER
MODEL
666R
$24.50
With Self-contained Resistance Ranges to 3 Megohms

NOTE THESE SPECIAL FEATURES

RANGES:

TRIPLETT

REFER TO INDUSTRIAL EQUIPMENT NEWS IN YOUR INQUIRIES TO MANUFACTURERS SO THEY CAN SEND SPECIFIC INFORMATION

IEN-6044

the new ANGL Gear
STANDARDIZED RIGHT ANGLE GEAR UNIT with UNIVERSAL MOUNTING
AIRBORNE
ACCESSORIES CORPORATION
25 MONTGOMERY ST. • HILLSIDE 5, NEW JERSEY

IEN-6045

A "VISUAL" PLANNING MODEL OF YOUR COMPLETE PLANT FOR ABOUT 5¢ A SQUARE FOOT

VISUAL PLANNING EQUIPMENT CO., INC.
Pennsylvania Avenue & River, Oakmont, Allegheny Co., Pa.

IEN-6046

SAVE TIME AND MONEY IN YOUR FACTORY WITH *Magic Bluer*

MORE EFFICIENT AND ECONOMICAL THAN PAINTING OR HOT BLUING

WHAT MAGIC BLUER DOES

HOW IT WORKS

WRITE FOR TRIAL SAMPLE

OTHER METAL COLORS

A. B. HARRIS P. O. BOX 505 GARY, INDIANA

IEN-6047

WRENCH . . Reversible ratchet, 1/2 to 9/16 in. across socket flats

Source: LOWELL WRENCH CO.
52-56 Commercial St., Worcester 8, Mass.

IEN-6048

BUILDING . . Packaged aluminum or steel in 12 and 24 foot widths

Source: H. D. CAMPBELL CO.
50 Industrial St., Rochelle, Ill.

IEN-6049

MILLING . . Carbide tooth cutter for cast iron, 6 to 14 in. diameters

Source: SUPER TOOL CO.
21652 Hoover Road, Detroit 13, Mich.

IEN-6050

SEE NO EVIL

GIVE TO CONQUER CANCER

AMERICAN CANCER SOCIETY

IEN-6051

Save On Steam Costs with CRANE Steam and Oil Separators

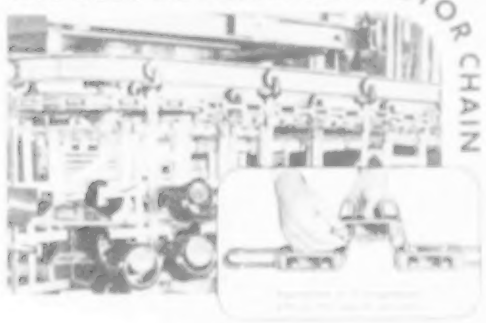
EVERYTHING FOR EVERY PIPING SYSTEM

CRANE

VALVES • FITTINGS • PIPE • PLUMBING AND HEATING

IEN-6052

THE BEST BUY IN A CONVEYOR CHAIN



OFFICES IN PRINCIPAL CITIES
8915 ALPINE AVE.
DETROIT 4, MICH.

IEN-6053

produced faster with rockwood ball valves

ROCKWOOD SPRINKLER CO.
40 HARLOW STREET WORCESTER 5, MASS.

▼ Briefly—circle IEN-6054 on coupon for more data ▼

You can do a lot

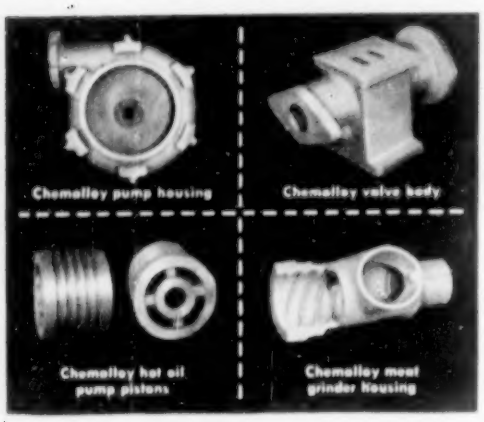
with a little **GOLD SEAL TAPE**

There's no waste. Laboratory-controlled production-measuring "tack" to the fraction-coated. Gold Seal Tape goes farther . . . gives you more edge-to-edge coverage. Handles easier, too . . . with just the right pull to speed, save time in the job, and make better taped joints. Ask your supply for Gold Seal. In 10-roll cartons and single rolls, neat red cellophane wrapped to keep it perfect. Jenkins Bros., Rubber Div., 80 Park Avenue, New York 17, N. Y.

JENKINS *Golden Gate* FRICTION RUBBER

MADE BY JENKINS BROS. MAKERS OF FAMOUS JENKINS VALVES

▼ Briefly—circle IEN-6055 on coupon for more data ▼



To Combat CORROSION
. . . Specify CHEMALLOY*

Chemalloy is not just one alloy, but a group of alloys . . . each developed to combat certain corrosive conditions. Wherever your maintenance problems require stainless, Ni-Resist* or other high alloys, investigate Chemalloy. Write for Bulletin T-151. Electric Alloys Division, 1948 Taylor Street, Elyria, Ohio.

*Reg. U. S. Pat. Off.

AMERICAN Brake Shoe COMPANY — ELECTRO-ALLOYS DIVISION ELYRIA OHIO

▼ Briefly—circle IEN-6056 on coupon for more data ▼

KEEP DIRT OUT OF ALEMITE FITTINGS *prevent* SCORED BEARINGS

S.S.WHITE ELASTOPLASTIC ALEMITE FITTING CAPS

They're FLEXIBLE

- Easy on
- Easy on
- Stay put

ASK FOR FREE BULLETIN

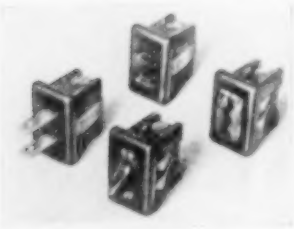
S.S.WHITE PLASTICS

FLEXIBLE SHAFTS AND ACCESSORIES
MOLDED PLASTICS PRODUCTS MOLDED RESISTORS

▼ Briefly—circle IEN-6057 on coupon for more data ▼

SWITCH . . With plug and socket and pilot light, snap-in application

Source: HART MFG. CO.
108-12 Bartholomew Ave., Hartford 6, Conn.



New design of this company's "Hart" line permits quick and economical assemblies that have appointments to permit installation in panels as thin as 1/16 in. Wide variety of switches, plugs, sockets and pilot lights are available. Units are interchangeable to permit a limitless combination.

The line comprises 3 series and 15 models in all. Series 300 is a push button switch with a pushbutton that, when pressed, locks in position. Pressing it again releases it. Series 400 is a push button switch with a momentary contact pushbutton that returns to normal position when released. Series 500 is a toggle switch. Units are rated at 10 amps at 125 volts a.c. or 5 amps at 250 volts a.c. Contact materials are silver alloy. Units are UL listed.

▼ Briefly—circle IEN-6058 on coupon for more data ▼

BUILDINGS . . Storm window combines glass and aluminum screen

Source: KANE MFG. CO.
50 Kane Bldg., Kane, Pa.

Weathershield window consists of a single pane of glass in an aluminum frame with a screen on the outside. Glass can be removed for cleaning from inside the building. Screen is removed for cleaning from outside. Unit is designed for installation in wood frame buildings.

▼ Briefly—circle IEN-6059 on coupon for more data ▼

PACKAGING Two information booklets, one on packaging production, the other on handling . . .

Bulletin 30 in the Association's Packaging Series deals with methods of improving efficiency of packaging operations so as to increase production. For price, 25 cents, or subscription to series of twelve bulletins, $2.50, address Packaging Association of America, 342 Madison Ave., New York 17, N. Y.

Bulletin 31 . . . is a 32-page booklet, 5½ x 8½ in., that can be had free by writing to the Packaging Association of America. It deals with the packaging of fragile and delicate products. Subjects covered include . . .

To Make it Easy, but at times Pleasant, to Find . . . EDITORIAL WRITERS . . . Description . . . Sewage . . . See Page 88

▼ Briefly—circle IEN-6060 on coupon for more data ▼

WATSON-STILLMAN
PORTABLE PIPE BENDERS

WIRE ROPE SHEARS

HAND PUMPS

HYDRAULIC JACKS

Distributors Products Division
WATSON-STILLMAN
Roselle, New Jersey

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New PAINT PROTECTS UP TO 1200° F!

TECOSTEEL High Temperature Aluminum Paint for metals subject to extreme heat requires no primer

Metal panels painted with TECOSTEEL withstand repeated quenchings in water after being heated at 1200° F. and no deterioration of the film.

USE TECOSTEEL FOR

Annealing Furnaces	Annealing Boxes
Industrial Ovens	Evaporator Tubes
Superheated Steam Lines	Power Plant Boilers
Hot Smoke Stacks	Boiler and Furnace Doors
Hot Air Ducts	Digesters and Manifolds

TECOSTEEL gives an even, uniform finish . . . requires no primer. It air dries in from 18 hours down to 1/2 hour at 1200° F. or 10 minutes. Can be brushed, sprayed or dipped.

TECOSTEEL's high adhesion and bonding resistance provides protection against abrasion and corrosive fumes.

Send us your mail order at $3.00 a pint. Remember, you save the cost of applying a primer when you use TECOSTEEL, and its durability under extreme heat more than pays for its economy and superior performance.

THOMPSON & COMPANY

▼ Briefly—circle IEN-6062 on coupon for more data ▼

AN AIR CYLINDER

WITH
BUILT-IN VALVE
AND SPEED CONTROLS

This pneumatic air cylinder is a complete power unit in itself. Four-way valve and speed controls with an operating lever are built-in to work from one side of unit only. Piston and valve assemblies are made from one single set of parts and operate with the smallest travel. This compact construction permits easy mounting with the air connections within easy reach of the operator. Available . . . 1½" to 12" bore, 1" to 24" stroke. Any stroke length.

Request is for Bulletin 62. Many other standard versions of air cylinders operate on valve types and sizes to suit. Design is a function which engineers production at lowest cost.

* Words taken to mean the same as the new Webster dictionary. Reference dictionary is used. Address the Bellows Co., Akron 10, Ohio, for more information.

The Bellows Co.
Akron 10, Ohio

▼ Briefly—circle IEN-6063 on coupon for more data ▼

MAKERS OF

Moppies

AMERICA'S SUPERIOR WIPING CLOTH

ATTENTION PURCHASING AGENTS

COLORED WIPERS 18c lb.

SNOW WHITE 24c lb.

WE PAY FREIGHT UP TO 1/2 LB.

CROSS

Wyoming Mahantongo Corporation
211-221 EAST STREET
BALTIMORE 2, MD.

▼ IEN-6064 ▼

AMES

FEATHER-LIGHT POCKET-SIZE THICKNESS MEASURES

B. C. AMES CO.

Mfgr. of Micrometer Dial Gauges • Micrometer Dial Indicators

AMES COMPACT BENCH-MODEL DIAL COMPARATOR No. 2

▼ IEN-6065 ▼

DRYBROW

"The Nation's Sweet Band"

TAKES THE "LAG" OUT OF HOT TEMPERATURE PRODUCTION

TRY A DRYEROW AT OUR EXPENSE. WRITE FOR FREE SAMPLE.

AMERICAN ALLSAFE CO., INC.

1245 Niagara Street Buffalo 13, N. Y.

▼ IEN-6066 ▼

UTILITY HOPPER CAR

Handles shavings, cuttings, castings, other products — unloads them by dumping

Sizes to specification with hopper capacity between 5 and 15 cu. ft.

Construction points include:

Welded steel assembly

Swivel fitted and fixed rear axles

Steel or rubber tire wheels

Steps to hold desired dumping position

Brake valves on the hopper

Provision for fork lift truck handling

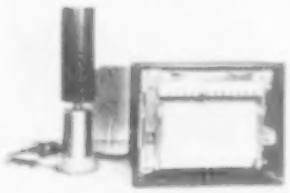
IRWIN FOUNDRY & MINE CAR COMPANY

1950 Sentenich Street Irwin, Pa.

▼ IEN-6067 ▼

TESTING . . Electronic instrument records very small radiation currents

Source: BROWN INSTRUMENT DIV.
1058-62 Wayne Ave., Philadelphia 44, Pa.



▼ IEN-6068 ▼

TRUCK . . Platform design, engine drive, load rating to 1 ton

Source: LEWIS-SHEPARD PRODUCTS INC.
363 Walnut St., Watertown 72, Mass.

▼ IEN-6069 ▼

HOW TO MAKE

NEW SAVINGS IN OLD FURNACES

THE BABCOCK & WILCOX CO.

▼ IEN-6070 ▼

Lowest over-all cost for light — with
G-E MERCURY LAMPS
• LOW CURRENT CONSUMPTION
• LOW INSTALLATION COST
• LOW MAINTENANCE COST
• LOW REPLACEMENT COST

GENERAL ELECTRIC

▼ IEN-6071 ▼

Minimum Resistance

FISHER GOVERNOR CO

Marshalltown, Iowa

▼ IEN-6072 ▼

UNBRAKO

SPS STANDARD PRESSED STEEL CO.

▼ IEN-6073 ▼

Only the THERMOSWITCH CONTROL solves "push button" coffee maker's complex control problem

FENWAL INCORPORATED
16 Pleasant St., Ashland, Mass.
Temperature Control Engineers

Fenwal

WRITE FOR BULLETIN ON THE
THERMOSWITCH®
®Reg. U. S. Pat. Off.
The Precision Thermostat For Temperature Control and Detection
SENSITIVE . . . but only to heat

▼ IEN-6074 ▼

ACCURATE DUAL AUTOMATIC CONTROLS

FLOOR MODEL
$550.00

$455.00

HUPPERT No. 11 SPECIAL ELECTRIC FURNACE

HIGHLY ACCURATE 2-PC DUAL AUTOMATIC CONTROLS cover temperature at which furnace is controlled, and at which it operates heating cycle. Both are individually throttled. All controls are integral parts of furnace—NO external mountings.

OPERATES BELOW STANDARD RANGE at 400° OVEN TEMPERATURE.

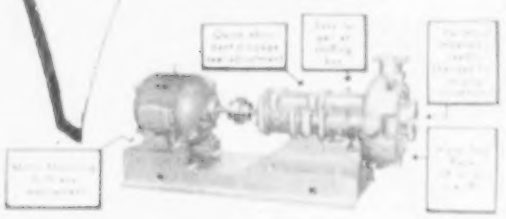
Heavy gauge Kanthal elements for 2,000° range, plate operation. Max. load 4 KW. Without open top, $35 extra. Special quotations.

FLOOR MODEL AS SHOWN
SEND FOR LITERATURE

K. H. HUPPERT CO.
3456 Cottage Grove Avenue
Chicago 17, Illinois

▼ IEN-6075 ▼

Check these NAGLE PUMP Design Features!



- Easy to dismantle and reassemble without disturbing suction or discharge piping
- Packing made on the shaft
- Packing is easily adjusted
- Adjusting from either side of stuffing box
- Does not have to be disconnected from piping to repack

Send for Catalog 4700 giving other features

Nagle Pumps

1301 CENTER AVENUE
CHICAGO HEIGHTS, ILL.

▼ IEN-6076 ▼

CONDUCTOR . . Electric control cable, polyethylene insulation, nylon jacket

Source: ROCKBESTOS PRODUCTS CORP.
281-7 Nicoll St., New Haven 4, Conn.

Individual conductors

▼ IEN-6077 ▼

MACHINE CENTER . . Tailstock unit mounts disc carrying female centers

Source: COSA CORP.
626 Chrysler Bldg., New York 17, N. Y.

New machine center

Application

▼ IEN-6078 ▼

PROTECTING . . . Safety directory classifies products and lists manufacturers

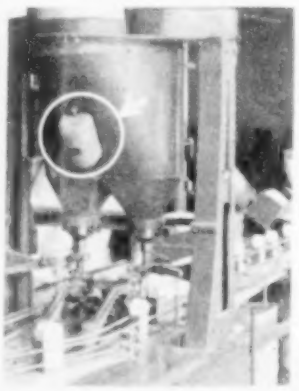
New Third Edition

▼ IEN-6079 ▼

SYNTRON
Electronic Magnets

ELECTRIC VIBRATORS
With Adjustable Power

Keep Bins and Hoppers Open and Free Flowing



On packaging machine hoppers, or on big storage bins.

Pulsating electromagnets that operate from 110, 220 or 440 volt A.C.

Write, giving us the details of your problem, such as size and shape of bin, gauge of bin walls, description of material, etc.

SYNTRON CO., 41 Lexington, Homer City, Pa.

▼ IEN-6080 ▼

POSITIVE PROTECTION

Specify the FLAME-GUARD. Wheelco's combustion safeguard with interchangeable plug-in program units for inventory economy. Theirs super safety and uninterrupted production on the instant self-proving safe start, easy plug-in maintenance. Built-in push button controls for gas and oil ovens, boilers, and other heating equipment.

Get Wheelco instruments in action

Write for Bulletin 72. Wheelco Instruments Company
345 W. Harrison Street, Chicago 7, Illinois

wheelco *electronic controls*

▼ IEN-6081 ▼

NOW

SELECT GEARS AS YOU SELECT ANTI-FRICTION BEARINGS

It is no longer necessary to design, manufacture or purchase special gears to meet your requirements. Foote Bros. Standardized **Duti-Rated** gears can be confidently selected for load, horsepower and life expectancy from rating tables—as easily as you now select antifriction bearings.

Foote Bros. **Duti-Rated** gears will bring you savings of 10% to 50% in over-all cost—reduce shop stocking time and assure you quick delivery of the gears you need.

Find out for yourself what this advanced idea in gear selection can mean to your design and production. Write for specific information on any standard gear you are working on and mail the coupon for Duti-Rated catalog containing complete selection and ordering tables.

Duti-Rated

STANDARDIZED GEARS
Duti-Rated

- Spur Gears
- Helical Gears
- Herringbone Gears
- Worm Gears
- Bevel Gears
- Spiral Bevel Gears

Available from 1 to 20 D.P., with a wide selection of bores and center distances. Helical gears and spiral bevel and worm gears made to order.

FOOTE BROS. GEAR AND MACHINE CORPORATION
[illegible] Wentworth Ave., Chicago 16, Illinois

Send for Duti-Rated Catalog

FOOTE BROS.

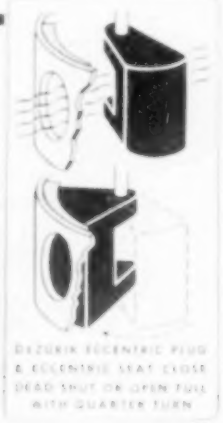
IEN-6083

Plastic SPRING-LOCKS Lift Easy Washing Machine Cover

Simmons Fasteners

IEN-6084

DeZURIK
Easy-Operating
PLUG VALVES
WON'T LEAK



DEZURIK ECCENTRIC PLUG & ECCENTRIC SEAT CLOSE DEAD SHUT ON OPEN FLOW WITH QUARTER TURN

DEZURIK SHOWER CO.
SARTELL, MINNESOTA

IEN-6085

"Industrial Gear"

AN ORGANIZATION BUILT TO RENDER EXCEPTIONAL SERVICE ON SPECIFICATION CUT GEARS · RACKS · SPROCKETS

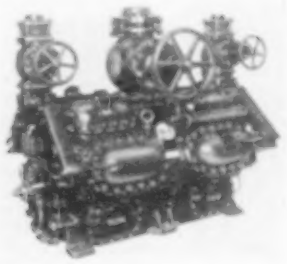
What "Industrial Gear" offers

INDUSTRIAL GEAR MFG. CO.
4931 VAN BUREN STREET CHICAGO 24, ILLINOIS

IEN-6086

REFRIGERATING . . . V-type compressor for ammonia, 10 to 195 ton ratings

Source: YORK CORP.
444 Roosevelt Ave., York, Pa.



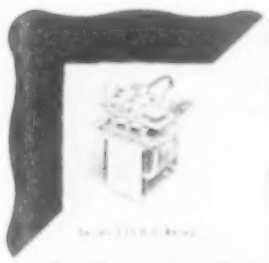
IEN-6087

TIMING . . . Repeating interval unit motor driven drum, specified circuits

Source: MIDWEST AUTOMATIC CONTROL CO.
508-12 Third St., Des Moines 9, Iowa

IEN-6088

ONE OF A LINE of GUARDIAN CONTROLS
for INDUSTRIAL and AIRCRAFT Applications



Write

GUARDIAN ELECTRIC

IEN-6089

Make printing a part of your processing

GOTTSCHO
ROLAPRINTER
...imprints continuous roll, sheet, strip

ADOLPH GOTTSCHO, INC.
MACHINES TO MARK WHATEVER YOU MAKE

IEN-6090

30 SECOND BLADE CHANGES

Kalamazoo

METAL CUTTING BAND SAW

MACHINE TOOL DIV. Kalamazoo TANK and SILO CO.

IEN-6091

HALLOWELL

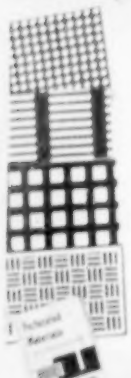
Steel Collars

SPS STANDARD PRESSED STEEL CO.

▼ REQUEST booklet by IEN-6092 if you write the maker ▼

Practical Beauty

H&K PERFORATED METAL

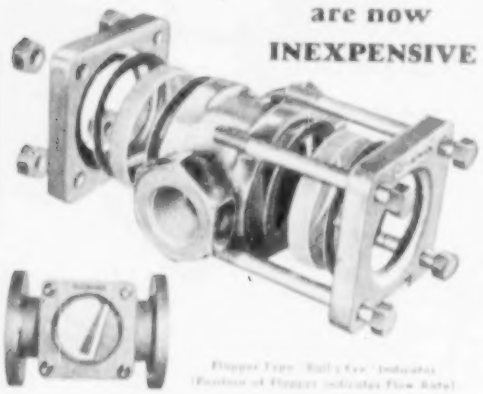


The Harrington & King Perforating Co.

5651 FILLMORE ST., CHICAGO 44, ILL.

▼ REQUEST booklet by IEN-6093 if you write the maker ▼

Quality Sight Flow Indicators are now INEXPENSIVE



Flapper Type "Bull's Eye" Indicator. (Position of Flapper indicates Flow Rate)

F&P "Bull's Eyes" have double windows, flanged covers (no threads to corrode and seize) and through bolted construction. They are suitable for normal and corrosive service and for low and high pressures. A ½" screwed cast iron "Bull's Eye" costs $10.00, as little as $8.00 in larger quantities.

At your request we'll mail catalog 93 (which illustrates the complete line) and a price list.

FLOWRATOR • FISCHER & PORTER CO.
Dept. OR-40 Hatboro, Pa.

▼ REQUEST booklet by IEN-6094 if you write the maker ▼

LAMSON UTILITY CONVEYOR
It's Portable...Adjustable...Reversible

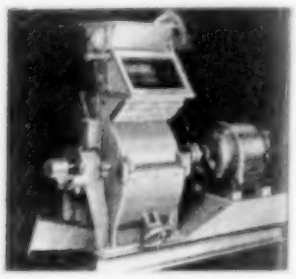
Only $295.00 F.O.B. Syracuse

LAMSON CORPORATION
550 LAMSON ST. SYRACUSE, N. Y.

▼ REQUEST booklet by IEN-6095 if you write the maker ▼

PULVERIZING . . Hammer mill for ear corn, small grains, roughage

Source: SPROUT, WALDRON & CO.
541 Waldron St., Muncy, Pa.



▼ REQUEST booklet by IEN-6096 if you write the maker ▼

CONVEYING . . Unscrambling table for Type-F spout cans, paneled flasks

Source: ISLAND EQUIPMENT CORP.
27-03 Bridge Plaza N., Long Island City 1, N. Y.

▼ REQUEST booklet by IEN-6097 if you write the maker ▼

INSPECTING . . . Textbook on methods; covers dimensional control and properties inspection.

Revised edition

▼ REQUEST booklet by IEN-6098 if you write the maker ▼

LITTELL Pres-Vac SAFETY FEEDERS

1 BOOST PRODUCTION 20% to 100%
2 ELIMINATE DIE BREAKAGE
3 INCREASE OPERATORS' SAFETY
4 CUT INSURANCE COSTS

F. J. Littell MACHINE CO.
4133 RAVENSWOOD AVENUE, CHICAGO 13, ILL.

▼ REQUEST booklet by IEN-6099 if you write the maker ▼

Save TIME · LABOR · DOLLARS

Brookfield SYNCHRO-LECTRIC Viscometer

TEST STUDY CONTROL **VISCOSITY**

As Simply, Quickly, Easily as Taking Temperature

Just a flick of switch, then read the Brookfield dial, and you have your viscosity measurement in centipoises. The whole operation, including cleaning up, usually is accomplished in less than a minute.

Available in a variety of models suitable for extremely accurate work with a wide range of materials, both Newtonian and non-Newtonian, the Brookfield Viscometer is portable and plugs in any A.C. outlet — can be used in the plant, or field.

Write today for fully illustrated 8-page catalog.

NEW! Two motors and exclusive counter-rotating action make new Brookfield Laboratory Mixer quickest, most effective on market. Creates annular flow provides scoop-like shearing and stops messy slop-over. Write for descriptive brochure. M

Brookfield ENGINEERING LABORATORIES, INC.
235 PORTER ST., STOUGHTON, MASS.

▼ REQUEST booklet by IEN-6100 if you write the maker ▼

NOW! REDUCE MATERIAL COST

BUT GET PERFECT STAINLESS PROTECTION

with PERMACLAD
STAINLESS CLAD STEEL

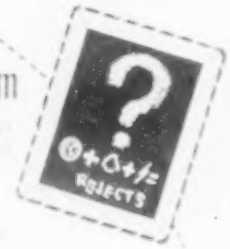
PERMACLAD combines the surface characteristics of stainless steel with the strong qualities of carbon steel. It permits you to improve your products, provide optimum corrosion and rust fighting value. You can work both PERMACLAD and carbon steel in the same shop without intermediate cleaning. Identical fabricating equipment and techniques are used with both. Also...

Manufacturers of products from chemicals and food processing equipment to automotive bumpers, refrigerators and store counters are using fabricated items of PERMACLAD. Write for more information and for FREE 8-page technical data folder. P-8

ALAN WOOD STEEL COMPANY

▼ REQUEST booklet by IEN-6101 if you write the maker ▼

What is your cleaning problem



☐ [illegible]

☐ [illegible]

☐ [illegible]

try metso cleaners *for your product*

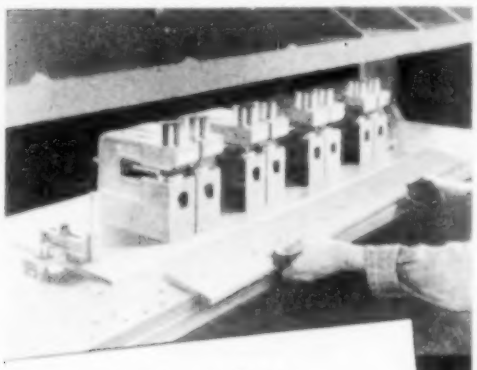
▼ IEN-6102 ▼

are you "up-to-date" on SPRAY NOZZLE developments . . . *for example*

WRITE and tell us the details of what you want to accomplish in spraying . . . our engineering facilities are at your service. Ask for our New Revised Catalog No. 51.

SPRAYING SYSTEMS CO. 3201 Randolph Street Bellwood (Illinois) Suburb of Chicago

▼ IEN-6103 ▼



Announcing

NEW **WALES**

TYPE "G" UNITS

FOR PUNCHING HOLES IN

1/2" THICK MILD STEEL

Practically 1/2" thick mild steel is a powerful job. Wales engineers have developed an exclusive independent self-contained unit that will do it. The unique Wales Punch eliminates the problem of stripping pressures and utilizes a stripping spring that fits over the punch and is contained with punching force always exerted with punching stock pressure on the stripping spring but not on the punch. Wales Type "G" Units are the first of the new Wales Type "G" line of punches and dies. Wales Punches are manufactured to the highest standards of precision and quality. Wales Punches are available in a complete range of standard sizes. Wales Punches are available in a complete range of standard sizes.

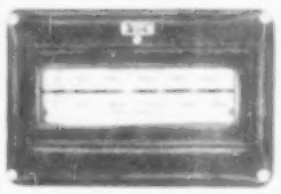
WALES STRIPPIT CORPORATION

261 PAYNE AVE., NORTH TONAWANDA, N. Y.

▼ IEN-6105 ▼

PYROMETER . . For built-in uses where small size is a requirement

Source: WHEELCO INSTRUMENTS CO. 845 W. Harrison St., Chicago 7, Ill.



The high resistance

▼ IEN-6106 ▼

PROTECTING . . Leather hand pad to handle brick, castings, cartons

Source: GENERAL SCIENTIFIC EQUIPMENT CO. 2785 W. Huntingdon St., Philadelphia 32, Pa.

Split Mitt

▼ IEN-6107 ▼

LUBRICATING . . Plunger type gun holds 6 oz. of grease, pressure feeds

Source: K-P MFG. CO. 1224-8 Linden Ave., Minneapolis 5, Minn.

Red Cap

▼ IEN-6108 ▼

PITTSBURGH EQUITABLE METER DIVISION
ROCKWELL MANUFACTURING CO.
Pittsburgh 1, Pa.

▼ IEN-6109 ▼

▼ IEN-6110 ▼

FAST! Just moisten sensing element . . .

SIMPLE! No separate chamber or battery!

STURDY! Rugged, thick sensitive moisture control element!

ACCURATE! Within 2% of the exact relative humidity reading of a standard sling psychrometer!

FOR USE IN Heating Ventilating Refrigerating Air Conditioning

WESTON ELECTRICAL INSTRUMENT CORPORATION

614 Frelinghuysen Avenue, Newark 5, New Jersey TAG

▼ IEN-6111 ▼

ONE-PIECE SELF-LOCKING NUTS

The FLEX-LOC is a one-piece, all-metal . . . free-running nut having the thread of a true and fixed Hex Nut on the pressed entry section. The thread-locking component locks the FLEX-LOC securely to any part on any threaded condition. A positive action . . . won't shake loose . . . permanently reusable . . . withstands extreme temperatures . . . unaffected by vibration . . . resists corrosion . . . and many other advantages.

SPS STANDARD PRESSED STEEL CO.

▼ READER SERVICE No. IEN-6112 ▼

▼ READER SERVICE No. IEN-6113 ▼

Because they're years ahead in steam generation

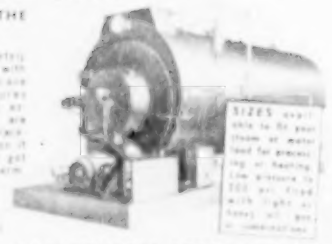
only CYCLOTHERM *STEAM GENERATORS*

have cyclonic combustion POWER

WHAT IS IT? It's the modern scientific discovery of transferring heat at the highest degree of efficiency with a new low in fuel consumption. Principal factors of which are the cyclonized solid flame with its exclusive spin-motion power — designed to utilize the full potential of every particle of fuel — and the thin layer of air resulting from centrifugal force that's always between the flame and wall of combustion chamber. A combination to produce steam far in excess of conventional standards for measured heating surfaces.

SEND FOR ALL THE BIG REASONS

Learn how the completely automatic Cyclotherm with its unexcelled all-in-one package types features mean not waste and at less costs. If you are planning a new or replacement boiler installation it will pay you to first get the facts on Cyclotherm.



CYCLOTHERM CORPORATION
DUNDEE, N. Y.

▼ READER SERVICE No. IEN-6115 ▼

DOOR . . Insulated steel design makes gas-tight seal in steel frame

Source: JAMISON COLD STORAGE DOOR CO.
428 Forest Drive, Hagerstown, Md.

Section 1000 designed to [illegible] and galvanized steel. Doors permanently anchored and set in steel frame in order to form a gas and vapor-tight seal in the wall. Doors, like design, is available with flush steel or galvanized and painted steel finish. Doors are available in double and single swing types. Double doors range from 4 ft. 7 in. to 8 ft. 8 in. in width and 6 ft. 7 in. to 8 ft. 8 in. in height. Single doors range from 2 ft. 7 in. to 4 ft. 2 in. in width and 6 ft. 7 in. to 8 ft. 8 in. in height.

The frame [illegible] of steel [illegible] and mounted on it is a [illegible] sealing bar that presents a rounded edge against which a hard rubber gasket on the door compresses when the door is closed. The wedge-type [illegible] locks the door in closed position. There is a [illegible] which, as well as a safety [illegible] to prevent the door from being locked from the inside, [illegible] the door with [illegible] construction. The [illegible] is [illegible] and [illegible] permanent trim.

▼ READER SERVICE No. IEN-6116 ▼

LOCKS . . Combination padlock and locker lock include a master key

Source: DUDLEY LOCK CO.
168-72 W. Monroe St., Chicago 6, Ill.

New padlock [illegible] as Type P-520 and a new locker lock, Type L-520 are now available. [illegible] padlock [illegible] one [illegible] cylinder key [illegible] Type P-520 [illegible] Type L-520 [illegible] Type P-520 [illegible] Type L-520 [illegible] Type P-520 [illegible] Type L-520

▼ REFER TO IEN - 6122 IF YOU WRITE THE MAKER ▼

Cuts grime from floors... and picks it up, too!

- Cuts grime loose
- Smooths & levels
- Picks up sullage

WRITE for Bulletin 81.5

G. H. TENNANT CO.
2570 2nd St. N., Minneapolis 11, Minn.

TENNANT

▼ REFER TO IEN - 6123 IF YOU WRITE THE MAKER ▼

RWAW

RESISTANCE WELDING AT WORK

14,400
SPOT WELDS PER HOUR

SCIAKY
SCIAKY BROS., INC., 4911 W. 67th St., CHICAGO 38, ILL.

▼ REFER TO IEN - 6124 IF YOU WRITE THE MAKER ▼

STOP watches

Yours free...

MAIL COUPON TODAY!

CLEBAR Watch Agency

▼ REFER TO IEN - 6125 IF YOU WRITE THE MAKER ▼

HOLDER . . Permanent magnet base for dial indicator or portable light

Source: ENCO MFG. CO.
4520-26 W. Fullerton Ave., Chicago 39, Ill.

▼ REFER TO IEN - 6126 IF YOU WRITE THE MAKER ▼

WOOD WORKING . . Circular saw blade, 7 and 8 in. diameters, carbide teeth

Source: SKILSAW, INC.
5019 Elston Ave., Chicago 39, Ill.

▼ REFER TO IEN - 6127 IF YOU WRITE THE MAKER ▼

MOTOR BASE . . Screw operated tilt for belt adjustment on small motor

Source: CEDERG MFG. CORP.
645-52 W. Washington Blvd., Chicago 6, Ill.

▼ REFER TO IEN - 6128 IF YOU WRITE THE MAKER ▼

ESSCO STEEL SHELVING
Durable . . . Compact . . . Adjustable

ELECTRIC SERVICE MANUFACTURING CO.
1723 CAMBRIA ST. • PHILA. 32 • PA. • Branches in Principal Cities

▼ REFER TO IEN - 6129 IF YOU WRITE THE MAKER ▼

Users Tell Our Story Best!

163 ORDERS
FROM 3 CUSTOMERS ALONE...TOTALED
1,421,402 LBS.

SPEED PATCH
WORLD'S FINEST, FASTEST, FLOOR FIXER!

TAKES ONLY ONE MINUTE PER SQUARE FOOT!

Corporation

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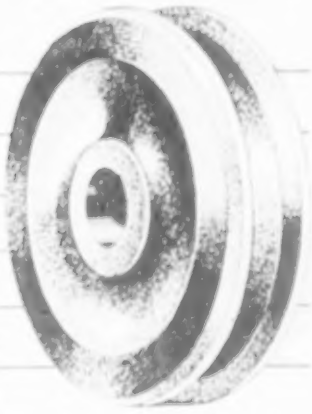
TO STOP CORROSION LOSSES
Today it's Roebling!
Send now for this free bulletin

WOVEN WIRE FABRICS DIVISION
JOHN A. ROEBLING'S SONS COMPANY
ROEBLING, NEW JERSEY

▼ REFER TO IEN - 6131 IF YOU WRITE THE MAKER ▼

WROUGHT STEEL CRANE WHEELS by STANDARD



BALDWIN
STANDARD STEEL WORKS

REFER TO INDUSTRIAL EQUIPMENT NEWS IN YOUR INQUIRIES TO MANUFACTURERS SO THEY CAN SEND SPECIFIC INFORMATION

▼ Reader Service—Identify by IEN - 6132 if you write the maker ▼

HANNIFIN

HYDRAULIC

Everything you want in CYLINDERS

Here's help for busy machine designers and plant operating engineers. You can save time and money right from the start by checking with Hannifin on all of your hydraulic and pneumatic cylinder requirements. *The Hannifin line is complete!*

Hannifin sets the standard for quality! Perfected, tested designs; finest quality construction. Tested-proven packings! Finest seals! Proper finishes! Interchangeable parts! Cylinders "Tru-Bored" and honed; rods ground and polished. For complete information, see your local Hannifin representative, or write

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1107 S. Kilbourn Ave.
Chicago 24, Ill.

PNEUMATIC

Helpful BULLETINS

Bulletin 210 (Left) "HANNIFIN HYDRAULIC CYLINDERS"

Bulletin 210 (Right) "HANNIFIN PNEUMATIC CYLINDERS"

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FREE... 8-Question Check Chart Exposes High Cost Manual Handling

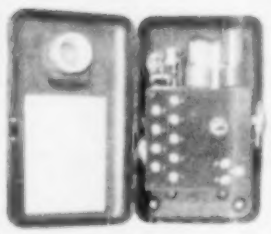
Automatic
Dept. 1-6, Chicago 20, Illinois

Automatic
ELECTRIC TRUCKS
Lift Lugs

▼ Reader Service—Identify by IEN - 6135 if you write the maker ▼

CONTROL . . Photoelectric equipment operates relay to signal or control

Source: PHOTOSWITCH INC
75-79 Broadway, Cambridge 42, Mass.



Series 20 . . .

Operating range . . .

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GAGE . . Dividing and leveling unit for application in pipe layout work

Source: INTERSTATE SALES CO
123 E. 18th St., 2nd Fl., New York 3, N. Y.

Model PF Pipe Fitters Square . . .

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VALVES . . Estimating charts to determine size of gas and liquid valves

. . . New Data Sheet 2007 . . .

All Makers of These And All Other Products Are Listed In THOMAS' REGISTER — Descriptions — Ratings — *See Page 10*

▼ Reader Service—Identify by IEN - 6139 if you write the maker ▼

Costs are again important

While it takes a big lathe to do big work—it takes a small, fast, modern lathe to do much lathe work more profitably.

Low in initial cost, low in operating costs (a power unit, Fluid clutch, transmission and headstock) they are more productive in many jobs and are always more profitable on small work.

Easier and easier to operate, they are also extremely versatile. They have "Zero-Pressure" Tapered Roller Bearing spindles, wide speed ranges, and many improved operating features.

SHELDON

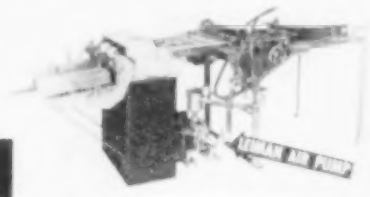
TS 16 B
13¼" Swing
7" Collet Capacity

Write for catalog.

SHELDON MACHINE CO. Inc.
Manufacturers of Quality Precision Lathes • Milling Machines • Shapers
CHICAGO 40, ILLINOIS, U.S.A.

▼ Reader Service—Identify by IEN - 6140 if you write the maker ▼

Air . . . the INVISIBLE HAND in materials-handling operations



Above—A Leiman Air Pump installation for feeding an Rotary Perforator and McAdams Paper Feeder. Left—Cross section of a Leiman Air Pump. The wings take up their own wear.

Since 1889 Leiman Air Pumps have been providing air suction (vacuum) and air pressure for many thousands of materials-handling operations. If you need to hold or move materials . . . feed or separate them . . . blow or agitate, consider using a Leiman Air Pump to do the job instead of some mechanical substitute.

A new 16 page illustrated catalog, complete with engineering data, is now available. Write today for your copy of Catalog 450-6 IEN.

LEIMAN BROS. INC. 146-151 CHRISTIE STREET NEWARK 5, NEW JERSEY

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No finger smear
No drawing smudge
with A. W. FABER'S quick-action
LOCKTITE
black or colored
REFILL DRAWING PENCIL
Patented collet clutches lead in bull dog grip — prevents breaking or slipping back into holder.
Holds all the standard graded drawing or retouching leads. WINNER Techno-TONE 1930—degrees 7B to 9H—assures best results.
Also available in RED, BLUE, GREEN, YELLOW, CARMINE, ORANGE, WHITE, and SILVER holding sturdy WINNER-Techno-TONE crayon leads for coloring, sketching and checking.
Unconditionally guaranteed
AW FABER-CASTELL
PENCIL COMPANY INC., NEWARK 4, N.J.

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A NEW ADVERTISEMENT OF THE SCHATZ MANUFACTURING CO.

NEW LOW COST RADIAL-THRUST BALL BEARINGS REPLACE PRECISION BEARINGS

Source: THE SCHATZ MANUFACTURING CO.
6750 Fairview Avenue, Poughkeepsie, N. Y.

Designed to replace . . .

Their cost is often less . . .

Race rings are carefully machined . . .

Schatz Catalog No. 11 . . .

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NEW INTERCOM can cut your Operating Costs—

IN THE OFFICE . . .

IN THE PLANT . . .

Your Executives Must . . .

Write Dept. F-5

Executone

COMMUNICATION & SOUND SYSTEMS

415 Lexington Ave., New York 17, N. Y.

IEN - 6142

BASA HAMMERS · FAVORITE WRENCHES · EMPIRE MALLETS

PALMETTO Pulling

MORAN'S COUPLINGS · "TUSKO" WALRUS POLISHING LEATHER

BASA IS BACK

-safer than ever!

Here's the new Basa Replaceable Face Hammer — with new design, new performance, plus all the old quality!

GREENE, TWEED & CO.
NORTH WALES PENNSYLVANIA

Contact your fully-stocked Palmetto distributor on all packing problems . . . ask him about our special tools.

"I WISH I HAD-"

IEN - 6146

COST CUTTER!

Saws NON-FERROUS METALS AND PLASTICS

WITH THE MOTCH & MERRYWEATHER

Carbide Tipped BLADE

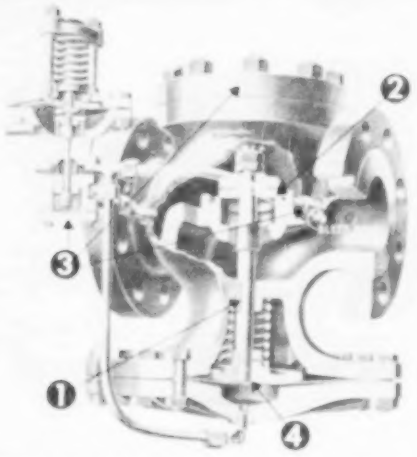
THE MOTCH & MERRYWEATHER MACHINERY CO.
DENTON BUILDING CLEVELAND 13, OHIO

AT YOUR COMMAND - AN UNPARALLELED EXPERIENCE IN CIRCULAR SAWING

IEN - 6143

Here's Why SPENCE REGULATORS

CUT COSTS . . . REDUCE MAINTENANCE



Thousands of installations throughout the country have proved that Spence Pilot-Operated Regulators provide dependable, trouble-free pressure and temperature control year-in, year-out. Here are a few of the many Spence features that save you money . . . help keep maintenance at a minimum.

1. PACKLESS CONSTRUCTION of all Spence main valves and most pilots eliminates the need for closely fitted parts that may stick or bind due to uneven expansion or foreign matter.

2. DURABLE SECO METAL SEATS AND DISCS resist wiredrawing. More than 20 years of experience with SECO Metal has caused it to produce one rule: where it has been cut by steam.

3. EASY TO CLEAN WITHOUT DISMANTLING — The seat and disc of the main valve and pilot can be cleaned and any working part removed without taking the main valve out of the line.

4. LONG-LIFE METAL DIAPHRAGMS, under usual conditions, never require replacement. The durable spring in the Spence Regulator operates at low unit stress . . . out of the path of the steam or other fluid flowing through the valve.

FREE BULLETIN NO. 4000 gives complete data . . . with full illustrations and description of the operating cycle of a Spence Regulator.

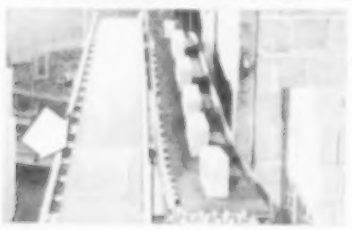
Spence

SPENCE ENGINEERING COMPANY, INC.
WALDEN, NEW YORK

IEN - 6145

ALLIGATOR

CONVEYOR BELT LACING



Every Tooth A Vise

in Long Continuous Lengths for Conveyor Belts . . . . .

- Excellent for Package Conveyors, Portable Loaders, Dressing and Packing Machines, etc.
- No cutting where conveyor or belt is a problem specify Alligator made to Measure.
- For engineer specifications or ordering specify Alligator made at Chandler.
- Separable and reusable on both sides.
- 17 sizes. For belts from 1/16" to 1/2" thick . . . and 2 ply widths.

Order from Your Supply House. Ask for Bulletin A-60

FLEXIBLE STEEL LACING CO. 4629 Lexington St., Chicago 44, Ill.

JUST A HAMMER TO APPLY IT

IEN - 6147

For Really Accurate Constant Weigh Feeding!

The Always Dependable

SYNTRON

GRAVIMETRIC FEEDERS

. . . more than purely "ELECTRONIC" instantaneous correction of even the slightest variation in weight in the flow of bulk material. Also unexcelled for "beyond those possible" with mechanically controlled equipment.

Single sizes for weight feeding chemical compounds up to huge tonnages for hundreds of tons per hour of ore, coal, limestone, etc.

Write for new brochure on Weigh Feeding "Electronically"

SYNTRON CO.
410 LEXINGTON AVENUE HOMER CITY, PA

IEN - 6148

HOLES ANY SHAPE ARE PUNCHED WITHOUT SPECIAL DIES

NEW FAST METHOD

- PUNCHES OPENINGS UP TO 12" x 4½"
- FASTER THAN ANY OTHER LOW COST METHOD
- ANYONE CAN OPERATE IT
- PUNCHES STEEL UP TO ½" THICK

Write for Complete Information

SEMCO

SERVICE MACHINE COMPANY, INC.
200 MILLER STREET, ELIZABETH 4, N. J.

INDEX TO ALL PRODUCTS

JUNE 1950

How to find what you need:

Last through the issue with your current needs in mind, turning down those subjects that appear not pertinent to your problem as you read the subject headings.

Next use this index to pick up page numbers references to pertinent subjects on the subjects you have chosen. An appraisal of the index after a number means additional material.

Now take one subject at a time and refer to the pages you have noted. This time read the editorial descriptions and advertisements in detail. Then write the firms mentioned on which you want further information or visit them in person. Come in, call or write the manufacturers direct.

If you have trouble in finding the answers to your current problem through the subjects in this issue, let us know. We can supply many of them with the help of our extensive card index of products that have appeared in IEN. Any question we cannot answer will be published in our "Wish I Had" column for your suggestions.

A

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C

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G

H

J

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For surface heat where you want it, when you want it, and in the amount you want it with G-E Calrod heaters. Calrod heaters are available for clamping on surfaces, inserting into drilled holes, casting into metal, locating in grooves, wrapping around cylinders and spacing away from surfaces. And they come in a wide enough range of sizes, ratings, and sheath materials to meet almost every conceivable heating requirement.

FOR NEW FREE CATALOG, GEC-1005A and application bulletin GEA-5007, "Heating Surfaces," write on your letterhead to: Section 720-17, Apparatus Dept., General Electric Co., Schenectady 5, New York.

GENERAL ELECTRIC

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O.K. GANG SLITTER KNIVES
for longer service

Made in O.K. Rolls Are Ever Ground to Maintain Correct Blade Position Around Arbor. Hence Your Knives Are Always Parallel and Run Extremely True. Both SPACERS for gang slitting or

Interchangeable blade groups to serve numerous set-ups. Write for our catalog circular to the one shown for trimming sheet steel, light plates, fibre, etc. Made with ground "Hi-Duty" steel. Rubber SPACERS for gang slitting or

O.K. ROTARY SHEARS & BLADES
for maximum toughness

The OHIO KNIFE Co.
CINCINNATI 23, OHIO, U. S. A.

CLIP AND MAIL TODAY

THE OHIO KNIFE CO., CINCINNATI 23, OHIO
Gentlemen: Please send without obligation specific data on knives I have checked.
CIRCULAR KNIVES ☐ SHEAR BLADES ☐
COMPANY
NAME
ADDRESS

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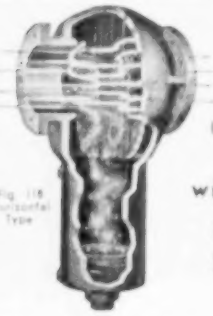

Insure
DRY
UNCONTAMINATED
STEAM
with COCHRANE
ALL-SERVICE
SEPARATORS

Where the flow of steam is horizontal, the Fig. 115 Cochrane All-Service Separator is used for the elimination of moisture or oil. Cochrane Separators are the most widely used and most successful type of separator. At least 50,000 are in daily use, removing oil or moisture from steam or air. The separator has exceptional port area, is self-cleaning, one-piece construction. The condensate chamber is of large capacity and the baffle is so designed that the purified steam or air does not come in contact again with the entrainment.

Write for Publication 2950

COCHRANE CORPORATION
3152 N. 17th Street Philadelphia 32, Pa.

COCHRANE
VALVES • TRAPS • SEPARATORS • SPECIALTIES

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SURE CURE FOR PUMP HEADACHES

Urgent pump requests Tuthill small pumps are recommended the world over for they depend absolutely on lubrication-method, hydraulic and liquid transfer services. These universal-use types of pumps are available in a great variety of sizes to 240 g.p.m. and pressures up to 600 p.s.i. Wide choice of porting and mounting arrangements in both packed and mechanically sealed pumps. Write for General Catalog.

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Yours for better bearing protection

...this new book about OIL SEALS

Why you need them, where they're used, how they're made, the various types and sizes, how to select the right seal for your job. Write for your free copy of this 24-page book.

Johns-Manville CLIPPER SEALS

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Clamp Most Anything
WITH
"Aero-Seal"
WORM-DRIVE CLAMPS

- Hold cushioned connections
- Hold rigid pipe joints or butts
- Conform to any shape
- No projections to snag
- Can be used [illegible]
- Use again and again
- Made in any length
- All stainless steel bands at no extra cost

WRITE TODAY
FOR FREE SAMPLE!

"Aero-Seal"® HOSE CLAMPS

BREEZE CORPORATIONS, INC.

AND SERVICES IN THIS ISSUE

JUNE 1950

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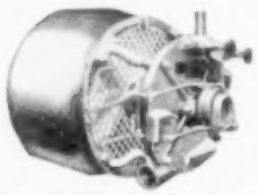
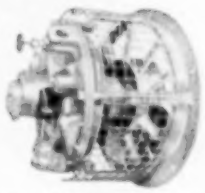
▼ Reader's Service No. IEN-6155 ▼

WING FORCED DRAFT BLOWERS





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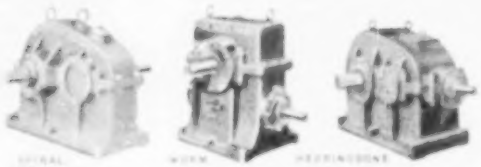

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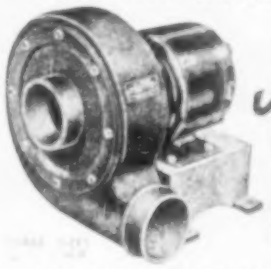

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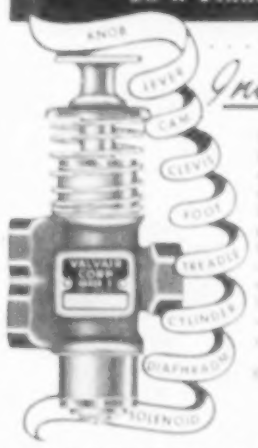

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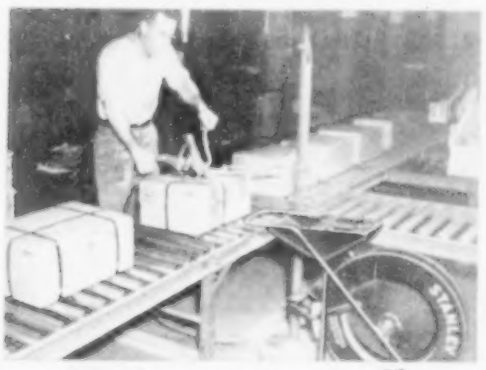

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